

ORDER NO.DSD0403003C1

B24

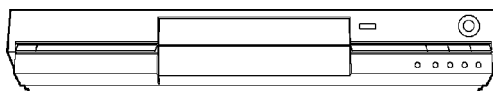
# Service Manual

DVD Video Recorder

DMR-E85HP / DMR-E85HPC

Colour

(S).....Silver Type



**Notes: The part of DVD Drive (VXY1814) is listed separately.  
Please refer ORDER No. RAM0402001C0**

When replacing with Digital P.C.B. or HDD,  
"UNFORMAT" indication is displayed and HDD must  
be formatted.  
After that, programme in the HDD will be lost.  
In detail, please refer to each content in this service  
manual.

## SPECIFICATIONS

## Specifications

Power supply	AC120 V, 60 Hz	Input	•LINE (pin jack x3), 1.0 Vp-p; 75 Ω •S connector x3 Y: 1.0 Vp-p; 75 Ω C: 0.286 Vp-p; 75 Ω
Power consumption	35 W	Output	•LINE (pin jack x2), 1.0 Vp-p; 75 Ω •S connector x2 Y: 1.0 Vp-p; 75 Ω C: 0.286 Vp-p; 75 Ω
Power consumption in standby mode	approx. 14 W	Component video output (480P/480i)	Y: 1.0 Vp-p; 75 Ω PB: 0.7 Vp-p; 75 Ω PR: 0.7 Vp-p; 75 Ω
Recording system	DVD Video Recording format (DVD-RAM), DVD Video format (DVD-R)	Antenna reception input	TV Channel: 2ch-69ch, 75 Ω CATV Channel: 1ch-125ch, 75 Ω
Optical pick-up	System with 1 lens, 2 integration units (658 nm wavelength for DVDs, 795 nm wavelength for CDs)	Audio system	
Recordable discs	• DVD-RAM: 12cm 4.7GB, 12cm 9.4GB, 8cm 2.8GB, 12cm 4.7GB (Ver. 2.1 /3X-SPEED DVD-RAM Revision 1.0) • DVD-R: 12cm 4.7GB, 8cm 1.4GB (for General Ver. 2.0), 12cm 4.7GB (for General Ver. 2.0 /4X-SPEED DVD-R Revision 1.0)	Recording system	Dolby Digital 2ch, Linear PCM (XP mode, 2ch)
Recording time	• Maximum 8 hours (with 4.7 GB disc) XP: Approx. 1 hours SP: Approx. 2 hours LP: Approx. 4 hours EP: Approx. 6 hours or 8 hours • Maximum 213 hours (with built in 120GB HDD) XP: Approx. 26 hours SP: Approx. 52 hours LP: Approx. 104 hours EP: Approx. 160 hours or 213 hours	Input	LINE (pin jack) x3 Reference input: 309 mVrms FS: 2 Vrms (1 kHz, 0 dB) Input impedance: 47 kΩ
Region number	Region No.1	Output	LINE (pin jack) x2 Reference output: 309 mVrms FS: 2 Vrms (1 kHz, 0 dB) Output impedance: 1 kΩ (Load impedance: 10 kΩ)
Playable discs	• DVD-RAM: 12cm 4.7GB, 12cm 9.4GB, 8cm 2.8GB, 12cm 4.7GB (Ver. 2.1 /3X-SPEED DVD-RAM Revision 1.0) • DVD-R: 12cm 4.7GB, 8cm 1.4GB (for General Ver. 2.0), 12cm 4.7GB (for General Ver. 2.0 /4X-SPEED DVD-R Revision 1.0) • DVD-VIDEO, DVD-Audio, CD-Audio (CD-DA), Video CD, CD-R/ CD-RW (MP3, CD-DA, Video CD formatted discs)	Digital Audio Out	Optical terminal (PCM, Dolby Digital, DTS)
Built-in HDD Capacity	120GB	Channel Number	2ch (L/R)
Drive Unit	High Speed Drive (correspond to 4times speed with DVD-R disc and 3times speed with DVD-RAM disc)	Others	
Video system		Dimensions	Approx. 430 (W) x 79 (H) x 274 (D) mm [Approx. 16 15/16" (W) x 3 1/8" (H) x 10 13/16" (D)]
Television system	NTSC color signal, 525 lines, 60 fields	Weight	Approx. 4.2 kg (9.24 lbs)
Recording system	MPEG2 (Hybrid VBR)	Operating Temperature	5 °C-40°C (41 F-104 F)
		Operating Humidity range	10 %-80 % RH (no condensation)
		Clock unit	Quartz-controlled 12-hour digital display
		LASER Specification (Class I LASER Product)	
		Wave Length	795 nm, 658 nm
		Laser Power	No hazardous radiation is emitted with the safety protection.
		Solder	This model uses lead free solder (PbF)

**Notes :** Mass and dimensions are approximate.  
Specifications are subject to change without notice.

# Panasonic

## 1. Safety precautions

### 1.1. General guidelines

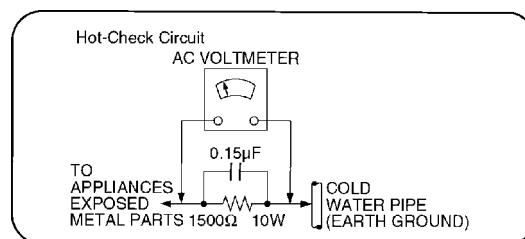
1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.

3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

#### 1.1.1. Leakage current cold check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between  $1\text{M } \Omega$  and  $5.2\text{M } \Omega$  . / When the exposed metal does not have a return path to the chassis, the reading must be  $\infty$ .

Figure 1



#### 1.1.2. Leakage current hot check / (See [Figure 1](#) .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a  $1.5\text{k } \Omega$  , 10 watts resistor, in parallel with a  $0.15 \mu \text{ F}$  capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in [Figure 1](#) .
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2

milliampere. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

## 1.2. Caution for fuse replacement

(For English)

**CAUTION:**

Replace with the same type fuse:

(Manufacturer: SOC or Hollyland, Type: ET or 50T, 1.6A, 250V)

(For Canadian French)

**ATTENTION:**

Utiliser un fusible de rechange de même type:

(Fabricant: SOC ou Hollyland, Type: ET ou 50T, 1.6A, 250V)

## 2. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatic Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistor and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective



package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).


7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**Caution**

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

**IMPORTANT SAFETY NOTICE**

There are special components used in this equipment which are important for safety. These parts are marked by  in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

### 3. Precaution of Laser Diode

**CAUTION:**

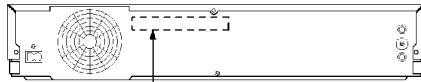
This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.

Wave length: 795 nm/658 nm

Maximum output radiation power from pickup: 100  $\mu$  W/VDE

Laser radiation from the pickup lens is safety level, but be sure the followings:

1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.



Product complies with DHHS  
Rules 21 CFR Subchapter J in  
effect at date of manufacture.  
Matsushita Electric Industrial  
Co., Ltd.  
Kadoma, Osaka, Japan

**ACHTUNG:**

Dieses Produkt enthält eine Laserdiode.

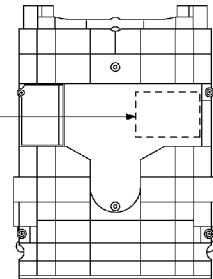
Im eingeschalteten Zustand wird unsichtbare  
Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge: 795 nm/658 nm

Maximale Strahlungsleistung der Lasereinheit: 100  $\mu$  W/VDE

Die Strahlungen der Lasereinheit ungefährlich, wenn  
folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlines blicken.
4. Nicht über längere Zeit in die Fokussierlines blicken.



<p>CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.</p> <p>CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. (IEC60825-1)</p> <p>ATTENTION - RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EVITER L'EXPOSITION DIRECTE AU FASCEAU LASER.</p> <p>ADVARSEL - SYNLIS OG USYNLIS LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.</p> <p>VARO! - AVOITASSA OLET ALTUURIN KÄYTTÖÄ JA KÄYTTÖÄ LASERILYLLÄ. ÄLÄ KATSO KÄYTTÖÄ.</p> <p>WARNING - SYNLIS OG USYNLIS LASERSTRÅLING NÅR DEKSEL ÅPNER. UNNGÅ UDSÆTTELSE FOR STRÅLING.</p> <p>ADVARSEL - SYNLIS OG USYNLIS LASERSTRÅLING NÅR DEKSEL ÅPNER. UNNGÅ UDSÆTTELSE FOR STRÅLING.</p> <p>VORSICHT - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DIREKT IN STRAHLEN BLICKEN.</p> <p>注意 - 打开时有可能可见及不可见激光辐射。请勿直视光束。</p> <p>注意 - 打开时有可能可见及不可见激光辐射。请勿直视光束。 (JIS S0232)</p>	<p>CAUTION!</p> <p>THIS PRODUCT UTILIZES A LASER.</p> <p>USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.</p>
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## 4. How to replace the Lithium Battery

### REPLACEMENT PROCEDURE

1. Remove the Top case and DVD-RAM drive unit with Main P.C.B. by referring the Disassembling Procedure.
2. Unsolder the Lithium Batteries: B7501 and then replace it into new one.  
( As shown in 20.2.1. The Main P.C.B. )

**NOTE:**

The lithium battery is a critical component. ( Type No.: CR2354-1GUF Manufactured by Panasonic. )

It must never be subjected to excessive heat or discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacture.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

(For English)

**CAUTION**

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type recommended by the equipment manufacturer.  
Discard used batteries according to manufacturer's instructions.

(For French)

**PRECAUTION**

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.  
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

## 5. Handling the Lead-free Solder

### 5.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

**Caution:**

- Pb free solder has a higher melting point than standard solder;  
Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

## 6. Each Buttons

## 7. New Features

### 7.1. Function of Power Circuit (IC1150)

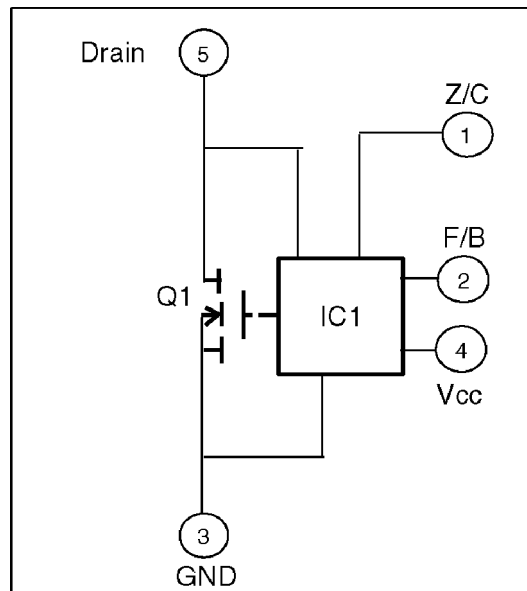
#### 1. General

We adopted IC module as the Switching Power Circuit for lower power consumption.

IC1150 is constructed with Switching materials and Control IC, and is partial resonance module.

We realized Switching Power with high efficiency, low noise and low power consumption.

#### 2. Equivalence Circuit to IC1150



Pin No.	Symbol	Description
1	Z/C	Trigger input terminal. Zero detection voltage: 0.25V It becomes less than 3V, the mode turns to standby.
2	F/B	Bias current feedback input terminal. ● Switching ON time (min.) ~ (max.) 1.5V ~ 4.5V / 0 $\mu$ sec. ~ 25 $\mu$ sec. ● In standby mode Oscillation stops: less than 0.8V Oscillation starts: over 1.8V
3	GND	GND terminal
4	Vcc	Power terminal of IC. Oscillation starting voltage: Vcc = and over 14.5V Oscillation stop voltage: Vcc = and less than 9.6V Over voltage latching voltage: Vcc = 20V
5	Drain	Drain terminal for Main switching material.

### 3. Startup Circuit

When power is turned on, input voltage of the Switching Transformer is supplied to IC1150 as the startup power.

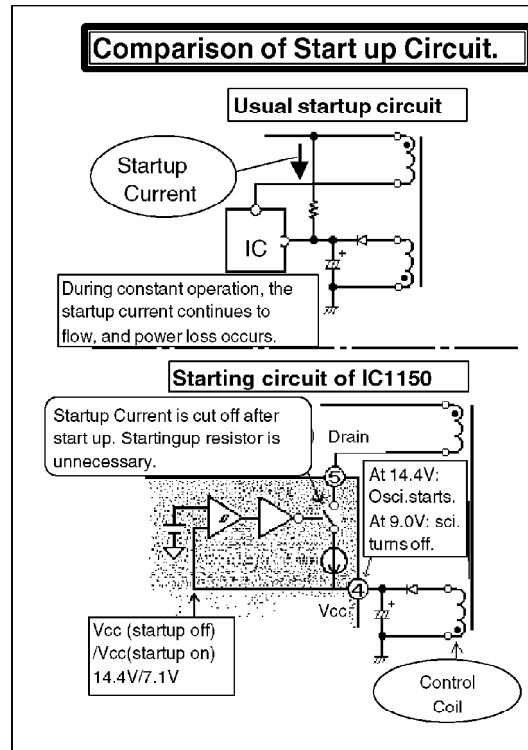
After IC1150 has started, the startup current is cut off.

The current of Startup Circuit is supplied as constant current source in IC1150 and as charge current for the capacitor connected between Vcc terminal and GND out side of IC1150 until Vcc reaches 14.4V.

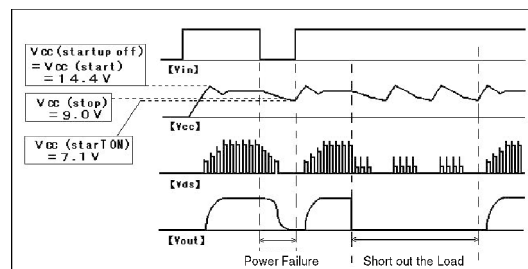
When Vcc reaches 14.4V, the Startup Circuit is cut off, then oscillation starts.

After then, power of IC1150 is supplied from control coil.

In case, the power failure or short out of the load, when Vcc becomes 9.0V; the oscillation stops, furthermore Vcc becomes 7.1V the Startup Circuit starts up and Vcc starts to rise.



### Startup Circuit Timing Chart



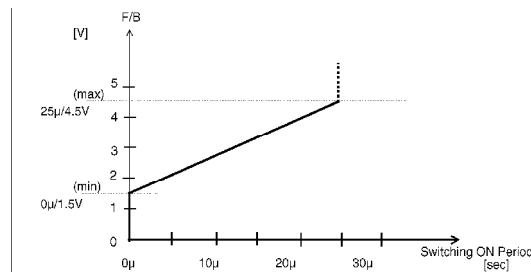
### Function of Z/C Terminal

When voltage of Z/C reaches 0.25V, Gate signal is output and Drain current starts to flow.

### Function of F/B terminal

F/B signal decides Switching ON width in low voltage controlling.

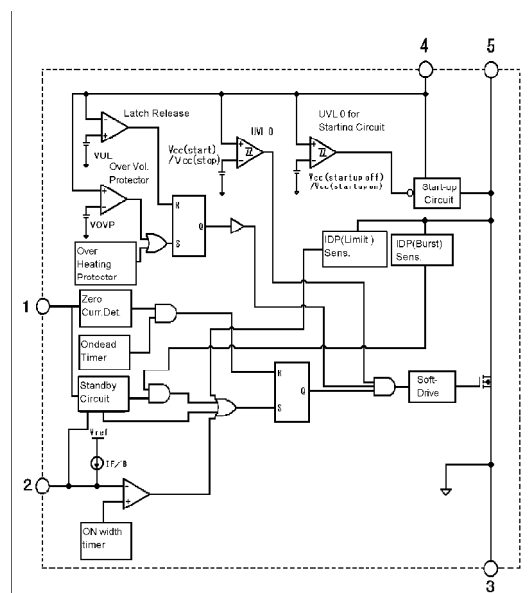
The Switching ON width responds to change of F/B Voltage.



### Standby Function

When Z/C Voltage becomes less than 3V, the unit changes to Standby mode.

### IC1150 Block Diagram



### Signal name

Pin No.	Name	Symbol
1	Zero Current Det.	Z/C
2	Feed back	F/B
3	GND	GND
4	Vcc	Vcc
5	Drain	Drain

## 8. Taking out the Disc from RAM-Drive Unit when the

## **Disc cannot be ejected by OPEN/CLOSE button**

### **8.1. Forcible Disc Eject**

#### **8.1.1. When the power can be turned off.**

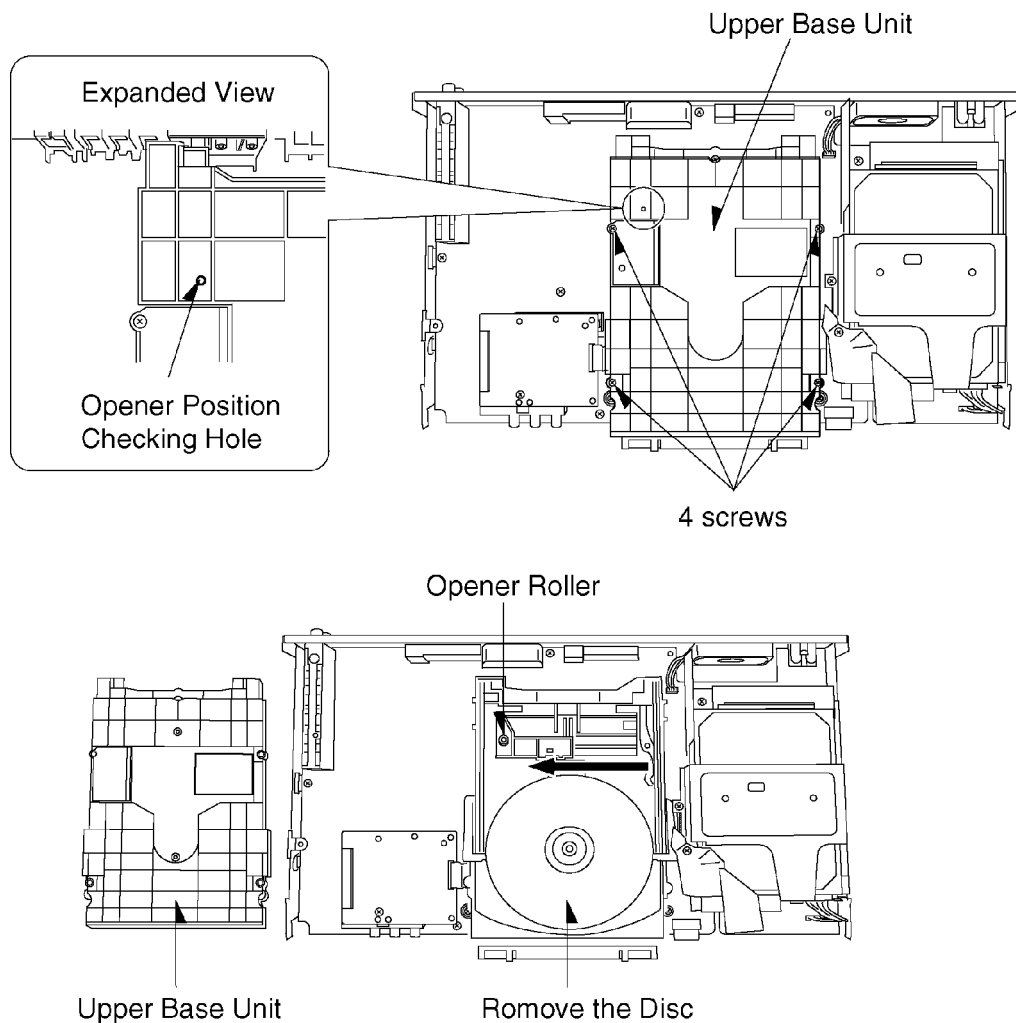
1. Turn off the power and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.

#### **8.1.2. When the power can not be turned off.**

1. Press [POWER] key on the front panel for over 10 seconds to turn off the power forcibly, and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.

### **8.2. When the Forcible Disc Eject can not be done.**

1. Turn off the power and pull out AC cord.
2. Remove the Top Case.
3. Remove the Front Panel.
4. Remove 4 screws and Upper Base Unit from DVD-RAM Drive.
5. Take out the disc and put the Opener Roller on fully position for direction of Arrow.
6. Put the Upper Base Unit so that the Opener Roller is inserted into the groove.
7. Check center of Opener Roller is seen through the Opener position Checking Hole, and tighten 4 screws.



## 9. Service Explorer

Confirm "RAM-Drive Last Error" in Service Mode

Execute Service Mode

1. Press [STOP], [TIME SLIP] and [OPEN/CLOSE] simultaneously for 5 seconds when P-off.

FL Display:

SERVICE MODE

**\*After finishing display "(7). Factor of Drive Error occurring", press [0] [2] ~[9] [9] keys of the Remote Controller so that 99 memories can be displayed as maximum.**

2. Press [4] [2] keys of remote controller.

Example of FL Display:

(1) Error Number is displayed for 5 seconds.



NO 01

(2) Time when the error has occurred is displayed for 5 seconds.

40216191526

The error has occurred at 2004(year)/Feb.(month)/15(day)/19(hour):15(minute):26(second)

(3) Last Drive Error (1/2) is displayed for 5 seconds.

031000

Error Sense  
Key

00: Bad disc  
03: Bad disc  
04: Bad disc or RAM-Drive malfunction

When above error codes are displayed, confirm operation with Panasonic RAM disc or Panasonic DVD-R disc.  
\*If the operation is OK, judge the error is due to media.  
\*If the operation is NG and symptom as BLOCK NOISES and so on that are particular symptom of Digital appears, judge the error is due to RAM-Drive or Digital PCB.

(4) Last Drive Error (2/2) is displayed for 5 seconds.

00 13 00 00

\*This error code is unnecessary for service.

(5) Error occurring Disc type is displayed for 5 seconds.

MEDIA DVD-R

Disc type

\*The error disc cannot be specified, display as "DVD".

(6) Disc Maker's ID is displayed for 5 seconds.

MXL R 081

Example of Disc Maker's ID:  
DVD-R Disc

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	Japan
2	PVC	Pioneer	Japan
3	MCC	Mitsubishi Chemical Corporation	Japan
4	TDK	TDK	Japan
5	MXL	Maxell	Japan
6	MCI	MITUI CHEMICALS	Japan
7	JVC	Victor JVC	Japan
8	TAIYOYUDEN	Taiyo yuden	Japan
	TYG		
9	GSC	Giga Storage	Taiwan
10	PRODISC	Prodisc	Taiwan
11	PRINCO	PRINCO	Taiwan
12	RITEK	RITEK	Taiwan
13	OPTDISC	OPTDISC	Taiwan
14	LEAD DATA	LEAD DATA	Taiwan
15	CMC	CMC	Taiwan
16	AUVISTAR	AUVISTAR	Taiwan
17	ACER	Acer	Taiwan

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
18	VIVASTAR	VIVASTAR	Switzerland
19	LGE	LG Electronics	Korea

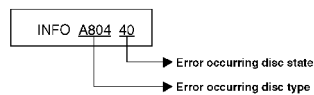
#### DVD-RAM Disc

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	
2	MATSUSHITA	Panasonic	Japan
3	MXL	Maxell	Japan
4	PRODISC	Prodisc	Taiwan
5	OPTDISC	OPTDISC	Taiwan
6	CMC	CMC	Taiwan

\*Since an display is arbitrarily set up by the disk producer side, the above-mentioned display may be changed.

Please make it reference as an example of a display.

#### (7) Factor of Drive Error occurring is left displayed



#### Error Occurring Disc Type

FL Display	Disc Type
00	DVD-ROM/Video
01	Audio-CD
02	2.6GB DVD-RAM
03	4.7GB DVD-RAM
04	DVD-R

#### Error Occurring Disc State

FL Displays (Hexadecimal)	Description			
	Disc distinction state	Cartridge disc state	Cartridge disc state	Disc size
00	OK	With cartridge	Has not been opened yet.	12 cm
10	OK	With cartridge	Has not been opened yet.	8 cm
20	OK	With cartridge	Has been opened.	12 cm
30	OK	With cartridge	Has been opened.	8 cm
40	OK	Bare	Has not been opened yet.	12 cm
50	OK	Bare	Has not been opened yet.	8 cm
60	OK	Bare	Has been opened.	12 cm
70	OK	Bare	Has been opened.	8 cm
80	NG	With cartridge	Has not been opened yet.	12 cm
90	NG	With cartridge	Has not been opened yet.	8 cm
A0	NG	With cartridge	Has been opened.	12 cm
B0	NG	With cartridge	Has been opened.	8 cm
C0	NG	Bare	Has not been opened yet.	12 cm
D0	NG	Bare	Has not been opened yet.	8 cm
E0	NG	Bare	Has been opened.	12 cm
F0	NG	Bare	Has been opened.	8 cm

## 10. Self-Diagnosis and Special Mode Setting

### 10.1. Self-Diagnosis Functions

Self-Diagnosis Function provides information for errors to service personnel by “Self-Diagnosis Display” when any error has occurred.

U14, H\*\* and F\*\* are stored in memory and held.

Display on FL will be cancelled when the power is turned off or AC input is turned off during self-diagnosis display is ON.

Error Code	Diagnosis contents	Description	Monitor Display	FL display
U12	Remote control code error	Display appears when main unit and remote controller codes are not matched.	No display	<div>*CHK RE</div> <p>“*” is remote code of the main unit. Display for 5 seconds.</p>
U14	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 70°C. The power is turned off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speed for the first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	No display	<div>U14</div> <p>“U14” is displayed for 5 minutes.</p>
U99	Hang-up	Displayed when communication error has occurred between Main microprocessor and Timer microprocessor.	No display	<div>U99</div> <p>Displayed is left until [POWER] key is pressed.</p>
H01	Inoperative fan motor	Display appears when inoperative fan motor is detected after powered on. The power is turned off when detecting.	No display	<div>H01</div> <p>Displayed is left until [POWER] key is pressed.</p>

Error Code	Diagnosis contents	Description	Monitor Display	FL disp
F00	No error information	Initial setting for error code in memory (Error code Initialization is possible with error code initialization and main unit initialization.)	No display	<div>F00</div> <div>Displayed is let</div>
F01	Drive hardware error	Display appears when drive unit error is detected. The event is saved in memory.	No display	<div>F01</div> <div>Displayed is let</div>
F12	Initialization error when main microprocessor is started up for program recording	Display appears when initialization error is detected after starting up main microprocessor for program recording. The event is saved in memory. The power is turned off when detecting.	No display	<div>F12</div> <div>Displayed is let</div>
UNSUPPORTED	Unsupported disc error	*An unsupported format disc was played, although the drive starts normally. *The data format is not supported, although the media type is supported. *Exceptionally incase of the disc is dirty.	"This disc is incompatible."	<div>UNSUPPORTED</div> <div>Display for 5 se</div>
NO READ	Disc read error	*A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.	"Cannot read. Please check the disc."	<div>NOREAD</div>
HARD ERR	Drive error	The drive detected a hard error.	"DVD drive error."	<div>Display for 5 se</div> <div>HARD ERR</div>
SELF CHECK	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, there is the possibility that defective Digital P.C.B. / RAM drive.	No display	<div>SELF CHECK</div>
Full Program	32 programs are already set.	32 programs are already set.	No display	<div>PROG FULL</div>

Error Code	Diagnosis contents	Description	Monitor Display	FL display
HDD SLEEP	In order to extend HDD life, the HDD is in SLEEP (not activated) mode.	<p>If there is no disc in the unit, the HDD will go into SLEEP mode after there has been no operation for 30 minutes or longer.</p> <p>*While in SLEEP mode play or recording may not begin rightaway because the HDD takes time to be re-activated.</p>		HDD S

## 10.2. Special Modes Setting

Item		FL display	Key oper:
Mode name	Description		Front K
TEST Mode	*All the main unit's parameters (include tuner) are initialized.	TEST L1	Press [SKIP (RE SLIP)] and [OPEN] keys simultaneously for five seconds when the power is off.
Service Mode	Setting every kind of modes for servicing. *Details are described in "10.3. Service Mode".	SERVICE MODE	When the power is on, press [STOP], [PAUSE], [SKIP (REV)] and [OPEN/CLOSE] keys simultaneously for five seconds.
Rating password	The audiovisual level setting password is initialized to "Level 8".	INIT	Open the tray, and press [SKIP (REV)] and [SKIP (FWD)] keys simultaneously for five seconds.
Forced disc eject	<p>Removing a disc that cannot be ejected.</p> <p>The tray will open and unit will shift to P-off mode.</p> <p>*When Timer REC is ON or EXT-LINK is ON, execute " Forced disc eject " after releasing TimerREC or EXT-LINK.</p> <p>*This command is not effective during "Child lock" is ON.</p>	<p>The display before execution leaves.</p> <p>*****</p>	When the power is on, press [STOP] and [SKIP (REV)] keys simultaneously for five seconds.

Item		FL display	Key oper:
Mode name	Description		Front K
Forced power-off	<p>When the power button is not effective while power is ON, turn off the power forcibly.*When Timer REC is ON or EXT-LINK is ON, execute “Forced Power-off” after releasing Timer REC or EXT-LINK.</p> <p>Action: The tray will open, and the power will turn off.</p>	Display in P-off mode.	Press [Power] key for more than 10 seconds
Aging	Perform sequence of modes as * Aging Description shown below continually.	Display following the then mode.	<p>When the power is ON, press [CH DOWN] and [SLIP] and [OPEN] simultaneously for more than five seconds and then press [Power] for more than 10 seconds.</p> <p>*The [REC MODE] must be set to EP or L.</p> <p>*When the unit has been shut up because of power failure, press [Power] keys for over 10 seconds once turn off the power and re-execute the command.</p> <p>“When releasing the aging mode, press [PC]</p>



Item		FL display	Key oper:
Mode name	Description		(Remote contr
Release Items	Item of Service Mode executing is cancelled.	SERVICE MODE	Press [0] [0] or [ service mode.
Error Code Display	Last Error Code of U14/H/F held by Timer is displayed on FL. *Details are described in “10.1. Self-Diagnosis Functions”.	<div>♣ □ □</div> <div>* ♣ shows U/H/F. □ □ shows number.</div>	Press [0] [1] in s mode
ROM Version Display	Region code, MAIN firm version, TIMER firm version and DRIVE firmware versions are displayed on FL for five seconds per each version in order, but ROM version will be left displayed.	<div>REGION*</div> <div>MAIN   *****</div> <div>TIMER*****</div> <div>DRIVE   ****</div> <div>ROM   *   ***</div> <div>“ ” are version displays.</div>	Press [0] [2] in s mode

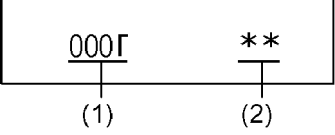


Item		FL display	Key oper:
Mode name	Description		(Remote contr
<b>Version Display of Main Microprocessor</b>			
Example of FL Display			
<div>Version<div>0100SK</div></div>			
<div>OEM Code<div>0: Matsushita Electric 1: Hitachi 2: Samsung 3: DENON</div></div>		<div>Destination Code and Model Code</div> <div><div><div>For Japan</div><div>SK: DMR-E55 SL: DMR-E85H SR: DMR-E95H SS: DMR-E300H SU: DMR-E500H SQ: DMR-E75V SV: DMR-E150V</div></div><div><div>For North America/Canada/Latin America</div><div>DK: DMR-E55P/PC/PL/F DP: DMR-E65P DL: DMR-E85HP/HPC DR: DMR-E95HP DU: DMR-E500HP/HPC DQ: DMR-E75VP/VPC/V</div></div><div><div>For Europe/Asia/</div><div>EK: DMR-E55EG/EB/EBL/EP/EE/GCS/GN/GK/GC, DMR-E53E EP: DMR-E65EG/EB/EP/EE/GCS/GN/GK/GC EL: DMR-E85HEG/HEB/HEP/HEE/HGCS/HGN ER: DMR-E95HEG/HEB EU: DMR-E500HEG/HEB/HGCS/HGN/HGK EQ: DMR-E75VEG/VEB</div></div></div>	
<b>Version Display of Timer Microprocessor</b>			
Example of FL Display			
<div>Version: 0.01<div>0010DA</div></div>		<div>Bottom 2 figures of Part Number of Timer Microprocessor: M30</div>	
White Picture Output	White picture is output as component Output from AV Decoder.  *White picture (Saturation rate : 100%)  *It is enable to switch Interlace/Progressive by “I/Pswitch: [1] [4]”	<div>*Initial mode is “Interlace”.</div> <div>WHIT I</div>	Press [1] [1] in s mode.
		<div>Switch Interlace/Progressive</div> <div>WHIT P</div>	Press [1] [4] in V Picture Output n  *I/P are switched alternately.
Magenta Picture Output	Magenta picture is output with Component Output from AV Decoder.  *Magenta picture (Saturation rate: 100%)  *It is enable to switch Interlace/Progressive by “I/Pswitch: [1] [4]”	<div>*Initial mode is “Interlace”.</div> <div>MAGE I</div>	Press [1] [2] in s mode.
		<div>Switch Interlace/Progressive</div> <div>MAGE P</div>	Press [1] [4] in M Picture Output n  *I/P are switched alternately.

Item		FL display	Key oper: (Remote contr
Mode name	Description		
RTSC Return in XP (A & V)	L1 input signal is encoded (XP), decoded (XP) and output decoded signal to external without DISC recording and DISC playback.	Initial mode: EE2/ Interlace/ XP/ Audio 48kHz	Press [1] [3] in s mode.
		EE2 I XP 48	
		Switch Interlace/ Progressive	Press [1] [4] in F Return XP mode *I/P are switched alternately.
		EE2 P XP 48	
I/P Switch	Switch Interlace and Progressive in EE mode. *Initial setting is "Interlace". *This command is effective during executing "White Picture Output", "MagentaPicture Output" and "RTSC Return in XP (A & V)" modes.	Audio 44.1 kHz/ 48 kHz Switch	Press [2] [4] in F Return XP mode *48 kHz / 44.1 kHz switched alternately.
		EE2 P XP 44	
		Initial mode is Interlace	Press [1] [4] in I/ mode. *I/P are switched alternately.
		SERVICE I	
I/P Switch		Switch Interlace/ Progressive	
		SERVICE P	
Audio Mute (XTMUTE)	Check whether mute is applied normally by the timer microprocessor.	TIMER MUTE	Press [2] [1] in s mode.
Audio Mute (XDMUTE)	Check whether mute is applied normally by the Digital P.C.B. (GLUE IC).	MAIN MUTE	Press [2] [2] in s mode.
Audio Pattern Output	The audio pattern stored in the internal memory is output (Lch: 1kHz/-18dB) (Rch: 400Hz/-18dB) *Audio sound clock switching operation of DAC can beconfirmed by sub command [2] [4].	Initial mode (Audio 48kHz)	Press [2] [3] in s mode.
		AUDIO 48	
		Audio 44.1kHz/48kHz switching	Press [2] [4] in A Pattern Output r *48 kHz / 44.1 kHz switched alternately.
		AUDIO 44	

Item		FL display	Key oper: (Remote contr
Mode name	Description		
HDD READ inspection	Perform a complete read inspection of the HDD.	<p>When the HDD is OK</p> <div>HDD RDOK</div> <p>If the HDD is defective</p> <div>HDD RDNG□○○</div> <p>□ : <b>Judge of Forward rate.</b>  *When normal (Forward rate is 35Mbps or more, and there is no HDD error): _ is Space.  *When Abnormal (Forward rate is less than 35Mbps): _ is X.  ○○ : <b>Number of what have spent time for seeking over 100ms.</b>  *When normal: ○○ are spaces.  *When Abnormal: Display Number of what have spent time for seeking over 100ms. However, if the number is more than 100, Display [XX]. We judge it is normal that the number is less than 4.</p>	<p>Press [3] [1] in the mode.</p> <p>*When canceling checking mode, executing, do "full power-off".</p> <p>Method: Press the "POW button on the Front more than 10 seconds</p>
Laser Used Time Indiction	Check laser used time (hours) of drive.	<div>LASER*****</div> <p>● (*****) is the used time display in hour.  ● Laser used time of DVD/CD in Playback/Recording mode is counted.</p>	Press [4] [1] in the mode.
Delete the Laser Used Time	Laser used time stored in the memory of the unit is deleted.	<div>CLR LASER</div>	Press [9] [5] in the mode.

Item		FL display	Key oper: (Remote contr
Mode name	Description		
RAM Drive Last Error	<p>RAM Drive error code display. *For details about the drive error code, refer to the Service Manual for the specific RAM Drive. *Details are described in “9. Service Explorer”.</p>	<p>1. Error Number is displayed for 5 seconds.</p> <div>NO **</div> <p>2. Time when the error has occurred is displayed for 5 seconds.</p> <div>YMMDDhhmmss</div> <p>Y: Year MM: Month DD: Day hh: Hour mm: Minute ss: Second</p> <p>3. Last Drive Error (1/2) is displayed for 5 seconds.</p> <div>*****</div> <p>4. Last Drive Error (2/2) is displayed for 5 seconds.</p> <div>*****</div> <p>5. Error occurring Disc type is displayed for 5 seconds.</p> <div>MEDIA*****</div> <p>6. Disc Maker ID is displayed for 5 seconds.</p> <div>*****</div> <p>7. Factor of Drive Error occurring is left displayed</p> <div></div>	<p>Press [4] [2] in s mode. Then press [0] [ the past 99 error displayed.</p> <p>Incase that the s cannot be identi display is black</p>

		INFO*****	
Item		FL display	Key operation (Remote control)
Mode name	Description		
Delete the Last Drive Error	Delete the Last Drive Error information stored on the DVD RAM-Drive.	CLR DRIVE	Press [9] [6] in service mode.
Turn on all FL/LEDs	All segments of FL and all LEDs are turned on.	All segments are turned on.	Press [5] [1] in service mode.
S1 signal output	Forcibly superimpose the S1 signal (approx. 4.5V DC) on the EE chroma signal, and check the output on the S terminal.	S1 OUTPUT	Press [5] [2] in service mode.
S2 signal output	Forcibly superimpose the S2 signal (approx. 2V DC) on the EE chroma signal, and check the output on the S terminal.	S2 OUTPUT	Press [5] [3] in service mode.
Front connection inspection	Press all front keys and check the connection between Main P.C.B. and Front P.C.B.	 <p>(1) Each time a key is pressed, segment turned on increases one by one. (2) Total number of keys that have been pressed.</p>	Press [5] [4] in service mode.
Production Date Display	Display the date when the unit was produced.	PD YYYYMMDD  YYY: Year MM: Month DD: Day	Press [6] [1] in service mode.
Display the accumulated working time	Display the accumulated unit's working time.	*****  (Indicating unit: Second)	Press [6] [4] in service mode.

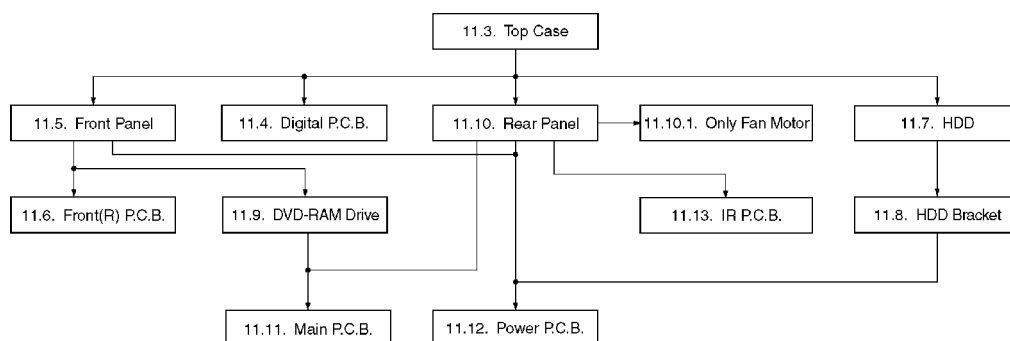
Item		FL display	Key oper: (Remote contr
Mode name	Description		
Display the Error History	Display the Error History stored on the unit.	Display reason of error for 5 seconds. <div>FTREC***</div> Display the time when the error has occurred for 5 seconds.. <div>YYMMDDHHMM</div> YY: Year MM: Month DD: Day HH: Hour MM: Minute Display the accumulated working time to occurring of the error for 5 seconds.. <div>*****</div> (Indicating unit: Second)	Press [6] [5] in s mode. Then press [0] [ the past 19 error are displayed.
Delete the Error History	Delete Error History information stored on the unit.	<div>CLR FTREC</div>	Press [9] [7] in s mode.
Tray OPEN/ CLOSE Test	The RAM drive tray is opened and closed repeatedly.	<div>NO*****</div> “*” is number of open/ close cycle times.	Press [9] [1] in s mode *When releasing mode, press the button on Front more than 10 se
Error code initialization	Initialization of the last error code held by timer (Write in F00)	<div>CLR E-CODE</div>	Press [9] [8] in s mode.
Initialize Service	Last Drive Error, Error history and Error Codes stored on the unit are initialized to factory setting.	<div>CLR SERV</div>	Press [9] [9] in s mode.
Finishing service mode	Release Service Mode.	Display in STOP (E-E) mode. <div>*****</div>	Press power but front panel in se mode.

# 11. Assembling and Disassembling

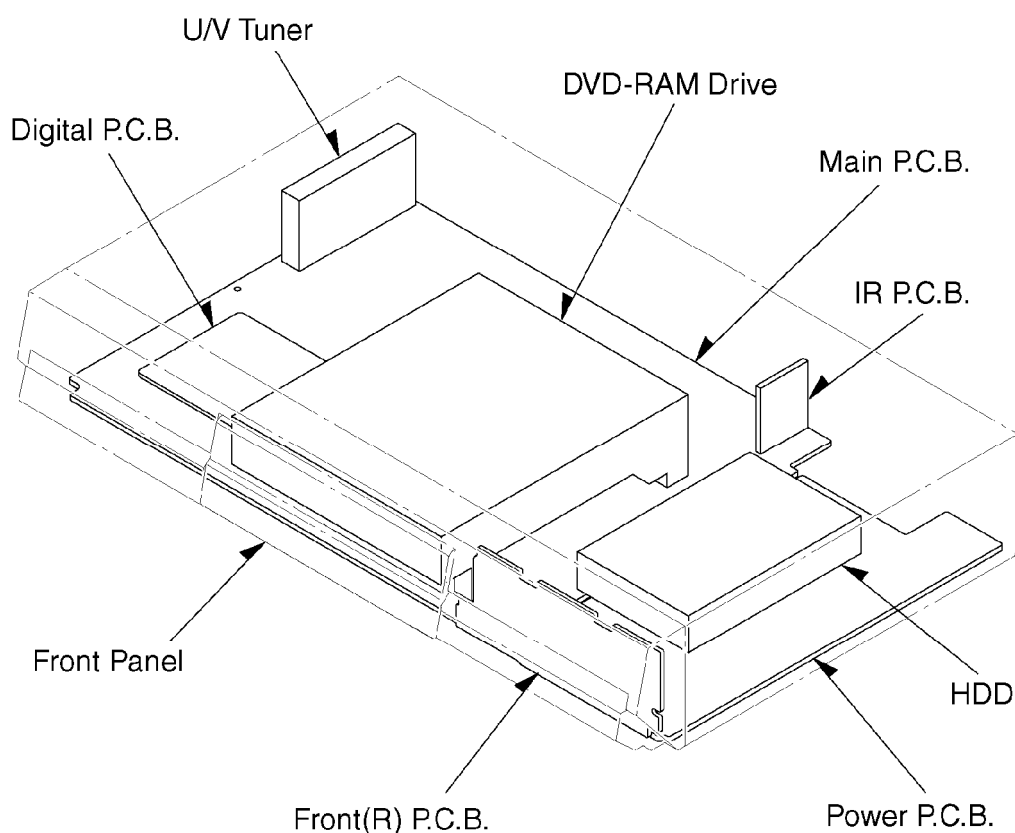
## 11.1. Disassembly Flow Chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart below.

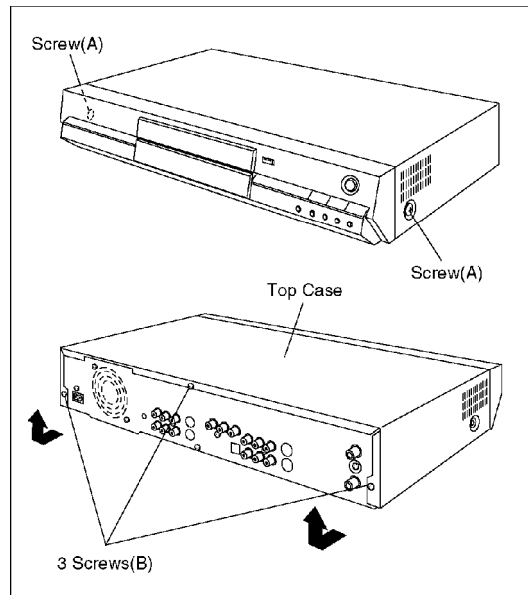


## 11.2. P.C.B. Positions



## 11.3. Top Case

1. Remove the 2 screws (A) and 3 screws (B).
2. Open the both ends at rear side of the Top Case a little and lift the Top Case in the direction of the arrows.



#### 11.4. Digital P.C.B.

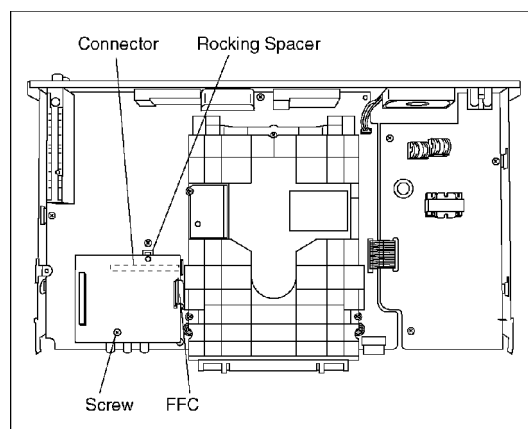
When replacing with Digital P.C.B., "UNFORMAT" indication is displayed and HDD must be formatted.

After that, programme in the HDD will be lost.

- How to format the HDD -

- 1) After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.
- 2) Select "YES" and press "ENTER" button on the remote controller, HDD will be formatted automatically.

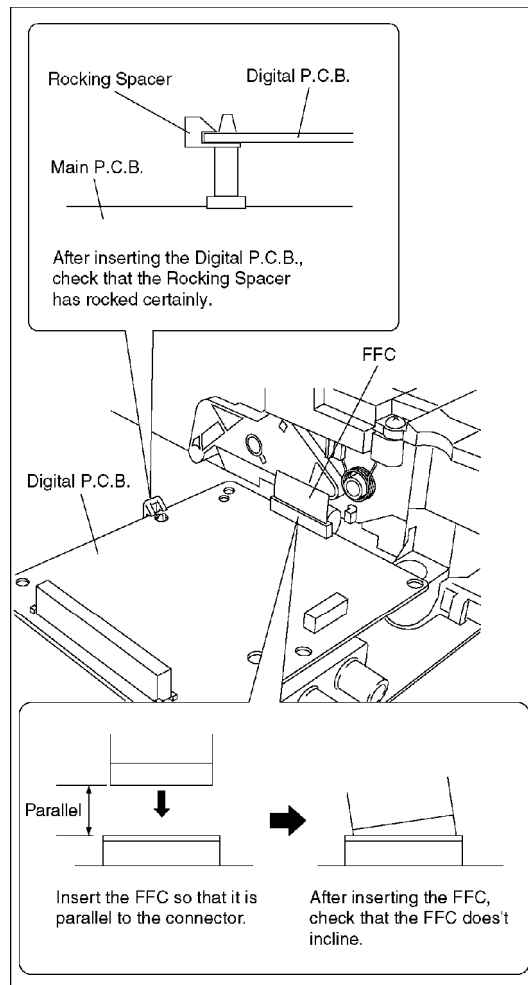
1. Remove the FFC and a Screw.
2. Unlock a Rocking Spacer.
3. Lift up Digital P.C.B. slightly so to disconnect Connector to remove Digital P.C.B.



#### CAUTION:

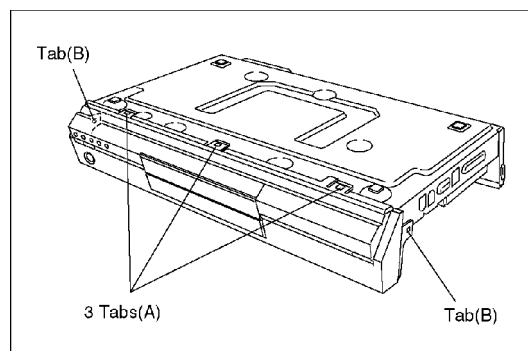
When replacing Digital P.C.B., pay attention as below.



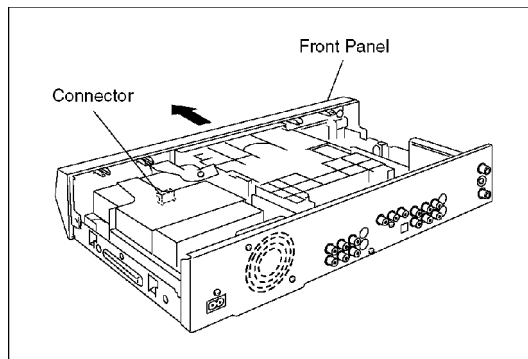


## 11.5. Front Panel

1. Remove 3 tabs (A) and 2 tabs (B) in this order. (The tab (A) and (B) should be removed at the same time, respectively.)

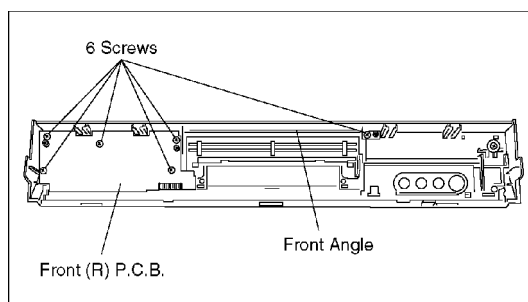


2. Move the front panel to front side straight and slowly so to remove it with Connector.



## 11.6. Front (R) P.C.B.

### 1. Remove 6 screws and Front Angle.



## 11.7. HDD

When replacing with HDD, "UNFORMAT" indication is displayed and HDD must be formatted.

After that, programme in the HDD will be lost.

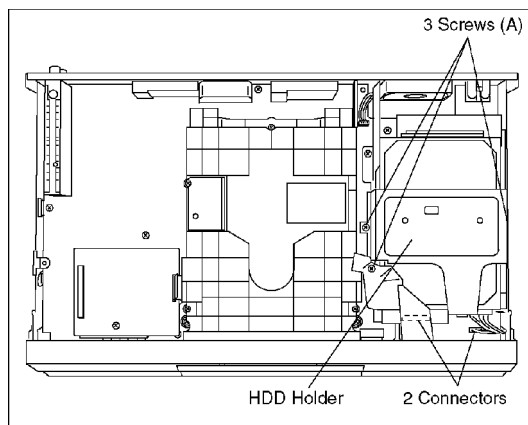
- How to format the HDD -

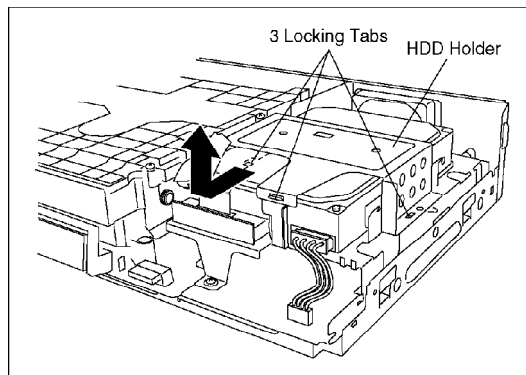
1) After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.

2) Select "YES" and press "ENTER" button on the remote controller, HDD will be formatted automatically.

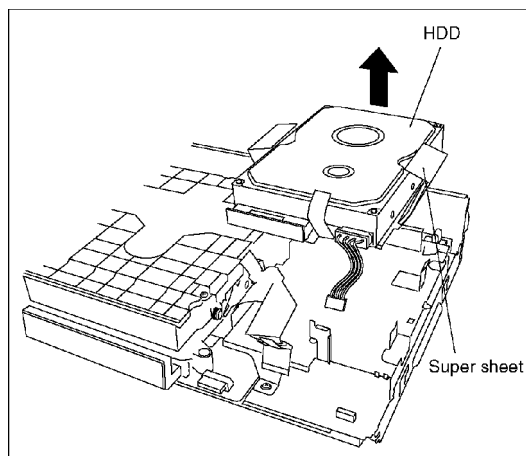
### 1. Remove 3 Screws (A) and 2 connectors.

### 2. Slide and lift up HDD Holder in the direction of the arrows so to unlock 3 locking tabs.





**3. Lift up HDD with super sheet vertically and remove super sheet.**



#### **Handling of HDD**

**The following precautions should be taken when handling HDD.**

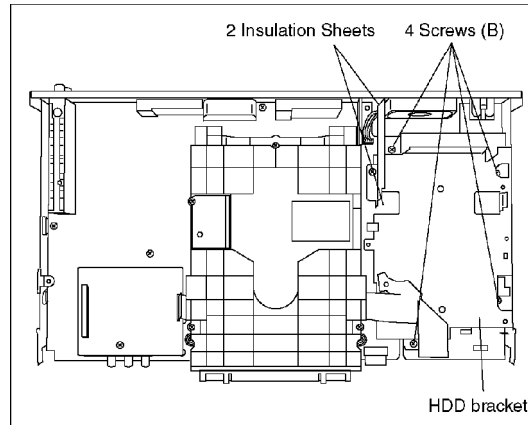
1. Never give an impact to HDD. (Even a drop from 1cm height can be a cause of HDD failure.)
2. When placing HDD on a workbench, provide a mat on a bench for shock absorption and anti-static purposes.
3. When installing HDD, release it from your hands only after confirming that it is fully set on the chassis.
4. Avoid stacking up HDD.
5. HDD is unstable and easy to fall. Do not stand it on its side face.
6. When handling HDD, hold its side faces to avoid static hazard.
7. Do not place HDD on its wrapping bag after removal. (Prevention of static hazard)
8. Use a screwdriver with low impact and anti-static features.
9. To replace HDD, remove the vertical short-circuit pin.  
(Keep the horizontal short-circuit pin in its place)

#### **Note:**

**When replacing HDD, please make the rear jumper slave or cable select configuration.  
(same configuration as HDD to exchange)**

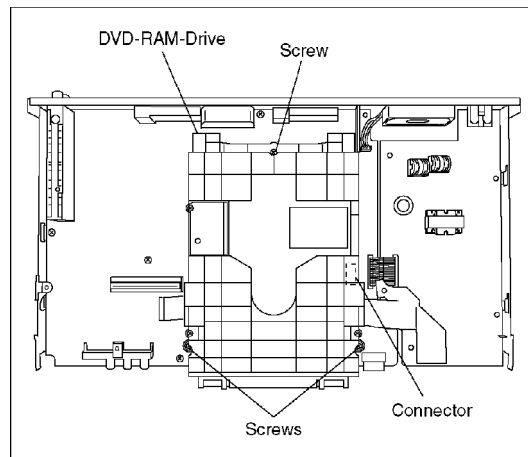
### 11.8. HDD Bracket

1. Remove 4 screws (B) and HDD Bracket with 2 Insulation Sheets.



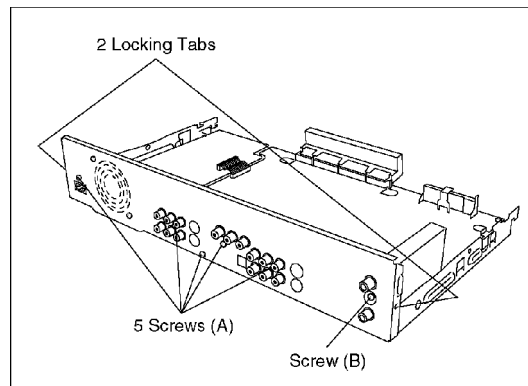
### 11.9. DVD-RAM Drive

1. Remove 3 Screws.
2. Pull out DVD-RAM Drive vertically so to remove it with Connector.



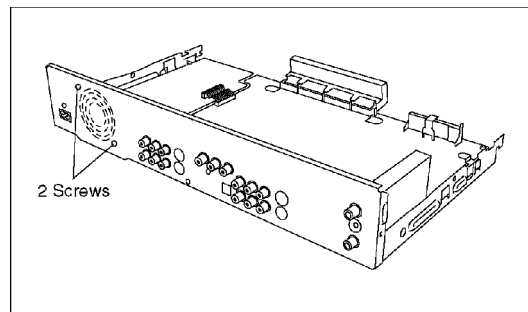
### 11.10. Rear Panel

1. Remove the 5 screws (A) and screw (B).
2. Unlock 2 Locking Tabs to remove Rear Panel.

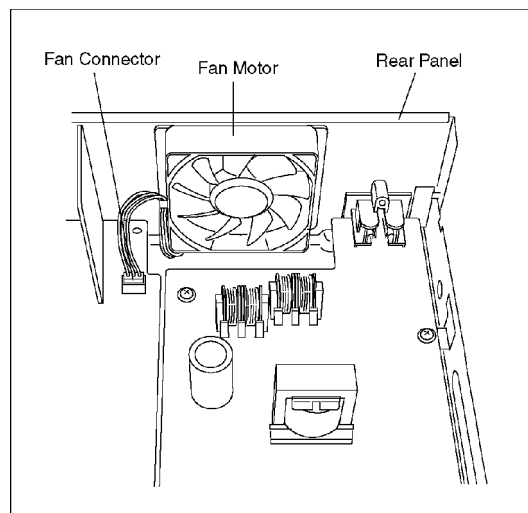


### 11.10.1. Only Fan Motor

**1. Remove the 2 screws.**

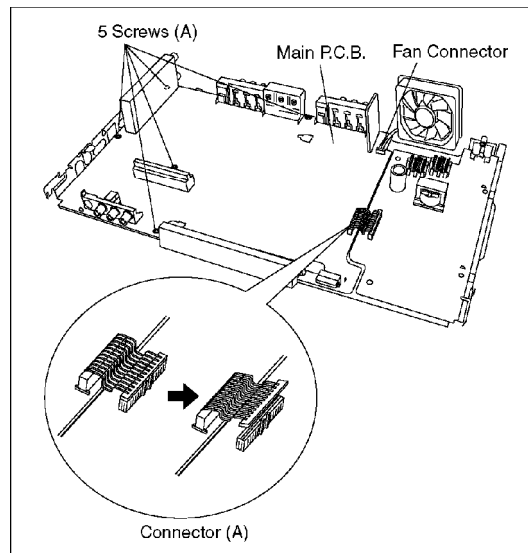


**2. Remove Fan Connector to remove Fan Motor.**

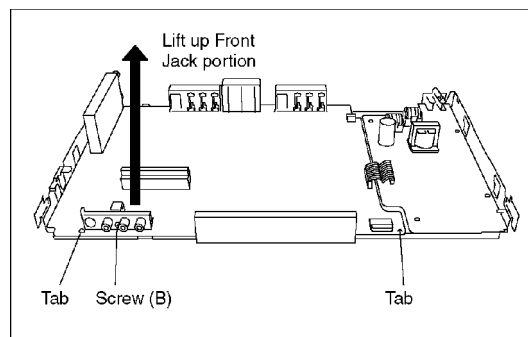


### 11.11. Main P.C.B.

**1. Remove the 5 screws (A), Connector (A) and Fan Connector.**

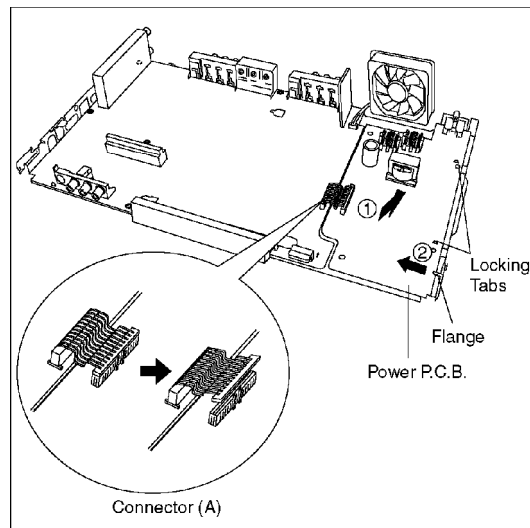


2. Remove a Screw (B) and lift up Front Jack portion of Main P.C.B. slightly so to unlock Tab to remove Main P.C.B..



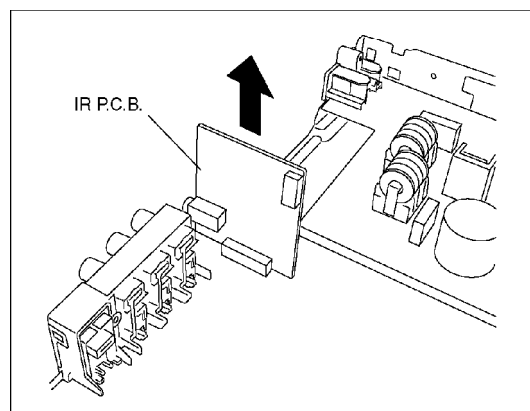
## 11.12. Power P.C.B.

1. Remove Connector (A).
2. Lift up Power P.C.B. a little so to unlock 2 Tabs and slide Power P.C.B. so to unlock Flange to remove Power P.C.B.



### 11.13. IR P.C.B.

1. Pull out IR P.C.B. in the direction of the arrow.



## 12. Service Fixture and Tools

Part Number	Description	Compatibilit
RFKZ0125	Extension FFC (Digital P.C.B. - DVD-RAM Drive / 40 Pin)	Same as E50 series
RFKZ0168	Extension Cable (Main P.C.B. - Fan / 3 Pin)	Same as E50 series
RFKZ0169	Extension Cable (Power P.C.B. - HDD / 4 Pin)	Same as E100H serie
RFKZ0197	Extension Cable (Main P.C.B. - DVD-RAM Drive / 8 Pin)	New
RFKZ0214	Extension Cable (MainP.C.B. - Digital P.C.B. / 88 Pin)	New
RFKZ0215	Extension Cable (MainP.C.B. - Front (R) P.C.B. / 12 Pin)	New
RFKZ0216	Extension Cable (MainP.C.B. - Power P.C.B. / 23 Pin)	New

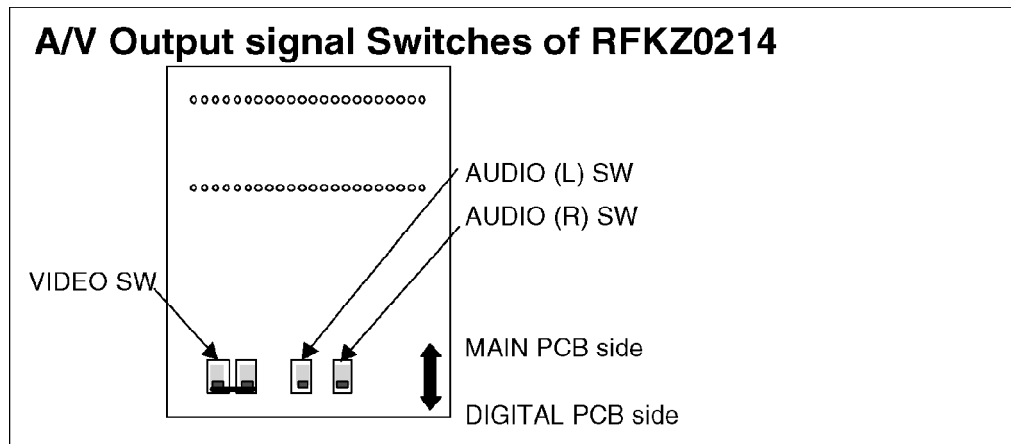
#### NOTE:

Extension Cable RFKZ0214 has A/V Output Signal switches.

Output signals can be switched from MAIN PCB side or DIGITAL PCB side.

When check MAIN PCB, turn switches to MAIN PCB side.

When check DIGITAL PCB, turn switches to DIGITAL P.C.B. side.



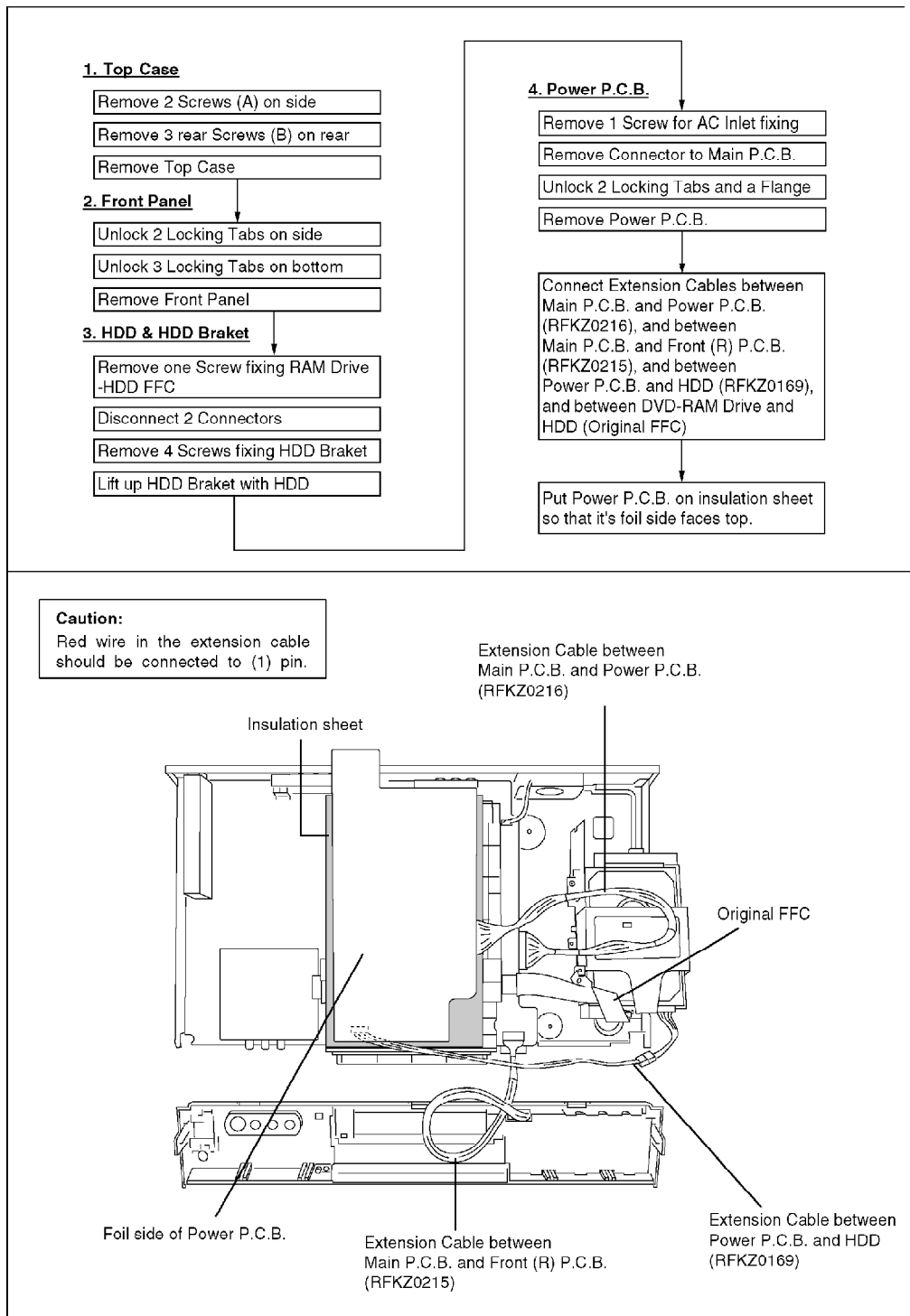
## 13. Service Positions

**Note:**

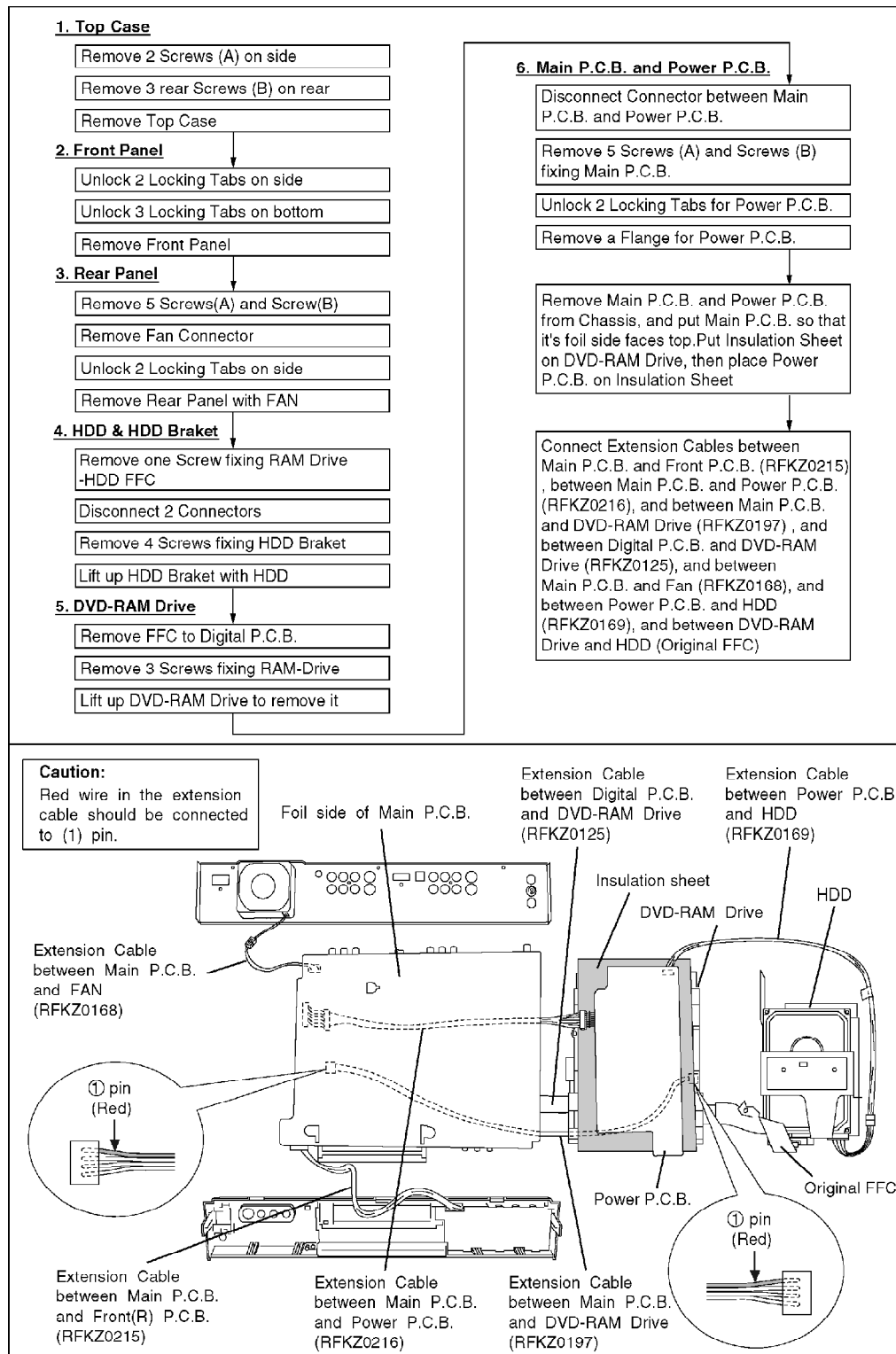
For description of the disassembling procedure, see the section 11.

### 13.1. Checking and Repairing of Power P.C.B.

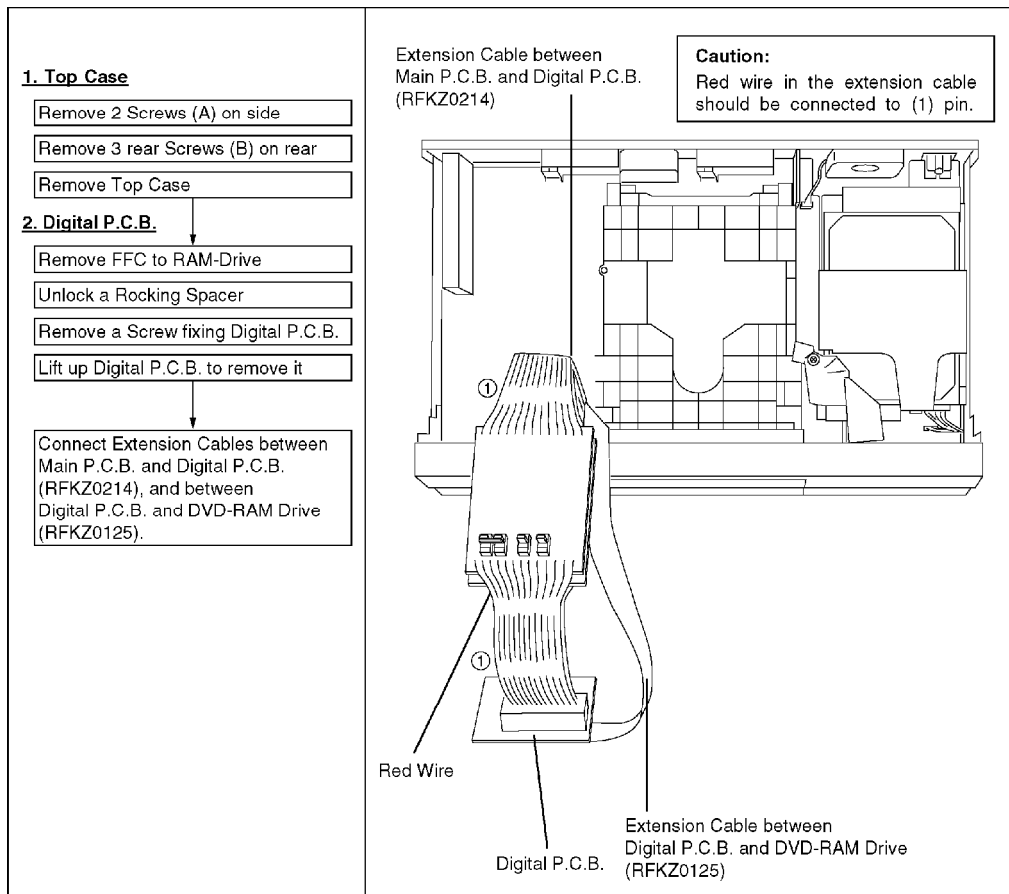




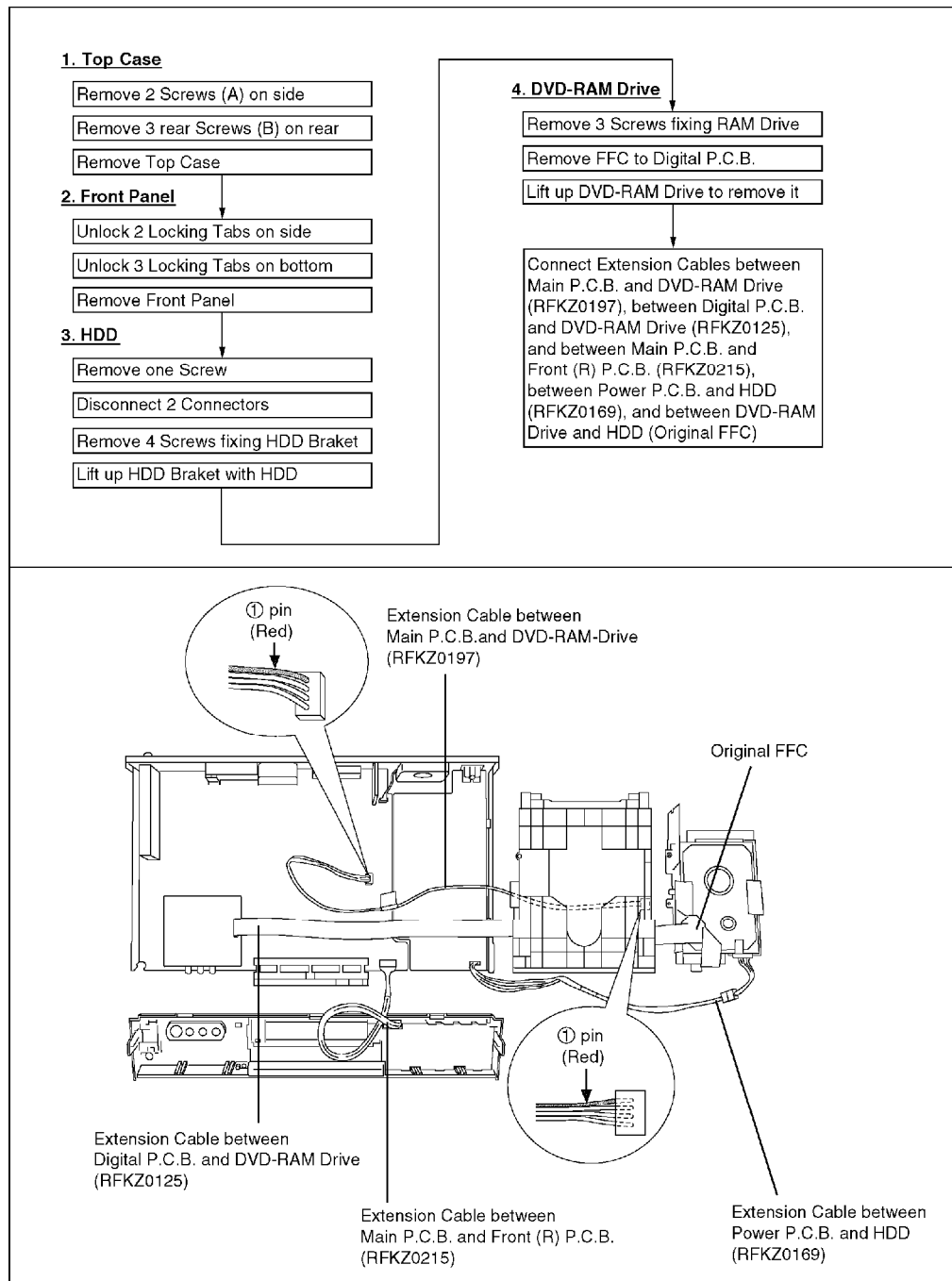
## 13.2. Checking and Repairing of Main P.C.B.



### 13.3. Checking and Repairing of Digital P.C.B.



## 13.4. Checking and Repairing of DVD-RAM Drive



## 13.5. Checking and Repairing of HDD

### 1. Top Case

Remove 2 Screws (A) on side

Remove 3 rear Screws (B).on rear

Remove Top Case

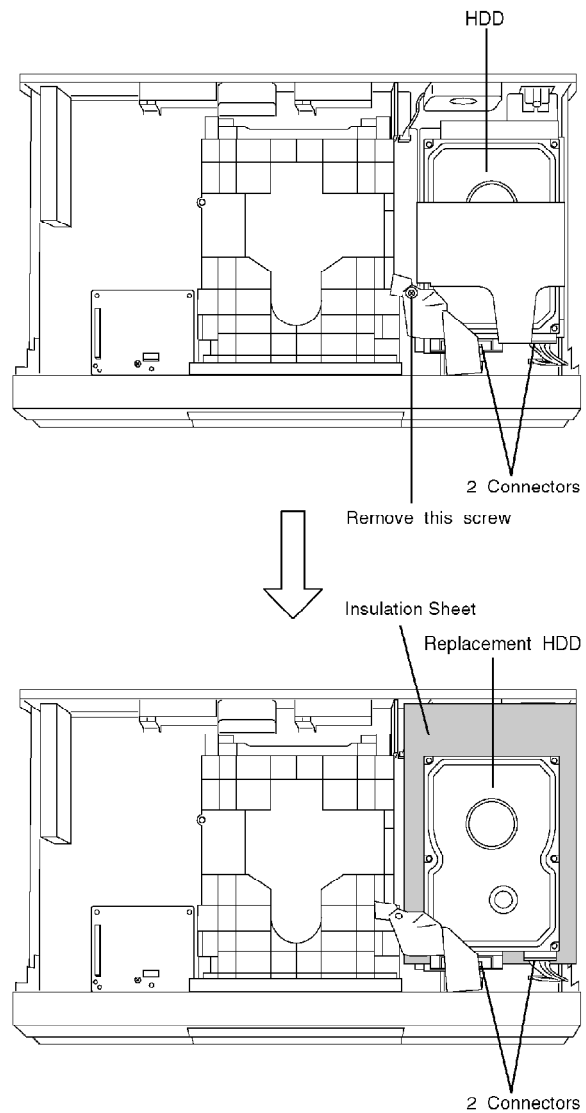
(1) Remove one Screw fixing RAM  
Drive-HDD FFC

(2) Disconnect 2 Connectors

(3) Put a Insulation Sheet on HDD

(4) Put Replacement HDD on the  
Insulation Sheet

(5) Connect 2 Connectors to  
Replacement HDD



## 13.6. Checking of IR P.C.B.

**1. Top Case**

Remove 2 Screws (A) and 3 Screws (B).

Remove Top Case.

**2. Rear Panel**

Remove 5 Screws (A) and one Screw (B).

Unlock 2 Locking Tabs to remove Rear Panel.

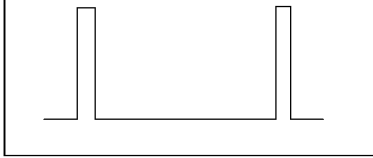
Connect TV Monitor.

Connect Oscilloscope to JK8001-4 (Hot) and GND.

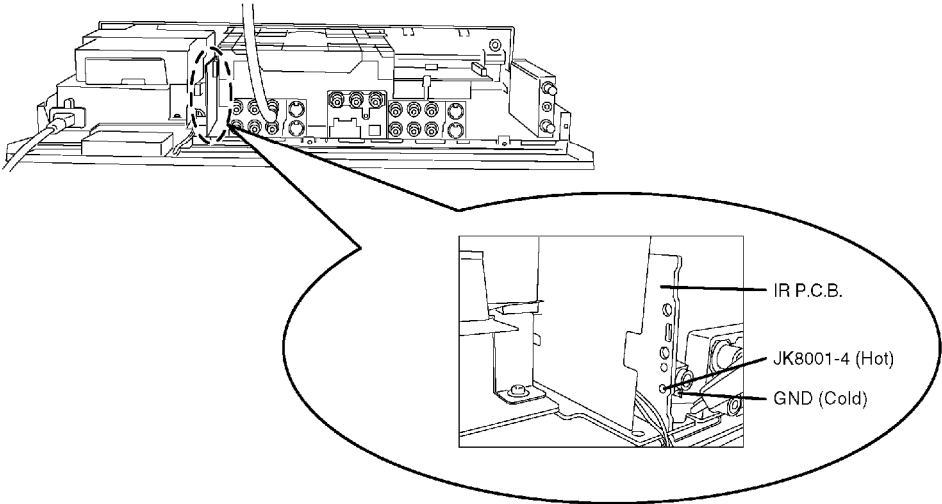
8. Select "Yes", and then press [ENTER].
9. Select "Yes", and then press [ENTER].
10. Select "L3", and then press [ENTER].
11. Press [ENTER].
12. Select "Not Listed", and then press [ENTER].
13. Press [ENTER], and then if the P.C.B. is "OK", pulse signals of approx. 4.5Vp-p are output twice from JK8001-4. (When you want to check again, select "Test this code again" and press [ENTER], then Pulse signals are output again.

**Checking Procedure:**

1. Turn on the power. Then if "Welcome ..." was displayed on the TV monitor, press [RETURN]. (\*After "EPG" has been set up, this indication will not appear.)
2. Press [FUNCTIONS].
3. Select "SET UP", and press [ENTER].
4. Select "TV GUIDE Setting" of the channel menu, and then press [ENTER].
5. Select "No, repeat setup process", and then press [ENTER].
6. Select "USA", and then press [ENTER].
7. Input "0 2 0 3 2", and then press [ENTER].



\*Recommended ranges of the Oscilloscope:  
V: DC range, and 1V/div.  
T: 1msec./div.



## 14. Adjustment Procedures

### 14.1. After replacing the RAM Drive with new one

After replacing of RAM drive unit, TEST mode is not necessary. Please confirm operation for RAM drive

#### Caution:

**In this case, all parameters are initialized.**

### 14.2. When the unit does not operate normally after replacing the Timer Microprocessor with new one

in order to transmit the

Step	Operation	Descriptions
1	While power is ON, short IC7503-1 pin (RESET) and the GND.	"RESET (L)" is transmitted to the terminal of Timer Microprocessor (pin 80 pin), then the unit operates normally.

## 15. Standard Inspection Specifications after Making Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert RAM disc.	The Panasonic RAM disc should be recognized.
3	Enter the EE (TU IN / AV IN - AV OUT) mode.	No abnormality should be seen in the picture sound or operation.
4	Perform auto recording and playback for one minute using the RAM disc.	No abnormality should be seen in the picture sound or operation.
5	Model with the HDD : Perform auto recording and playback for one minute using the HDD	No abnormality should be seen in the picture sound or operation. *Panasonic DVD-R disc should be used with recording and playback.
6	If a problem is caused by a VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the picture sound or operation.
7	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [FIRM_SUCCESS] appears in the FL displays. *[UNSUPPORT] display means the unit is not updated to newest same version. Then version update is not necessary.
8	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [CLR SERV] appears in the display. After checking it, turn the power off.
9	When replacing of RAM drive, transfer [9] [5] in the service mode setting to delete Laser used time.	Make sure that [CLR LASER] appears in the display. After that, turn power off.

Use the following checklist to establish the judgement criteria for the picture and sound.

Item	Contents	Check	Item	Contents
Picture	Block noise		Sound	Distorted sound
	Crosscut noise			Noise (static, background noise, etc.)
	Dot noise			The sound level is too low.
	Picture disruption			The sound level is too high.
	Not bright enough			The sound level changes.
	Too bright			
	Flickering color			
	Color fading			

## 16. Voltage and Waveform Chart

Note)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.  
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

### 16.1. Power P.C.B.

### 16.2. Main P.C.B.

### 16.3. IR P.C.B.

### 16.4. Front (R) P.C.B.

### 16.5. P9001 Connector

### 16.6. Waveform Chart

## 17. Abbreviations



INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	
	CD	CAP. BLACK DROP OUT
	CDSCK	COMPACT DISC
	CDSRDATA	CD SERIAL DATA CLOCK
		CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	
	DO	DIGITAL MUTE CONTROL
	DOUT0~UP	DROP OUT
		DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLRF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
F	FSCK	FREQUENCY SUB CARRIER
		FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	
	MDQ0~UP	MEMORY SERIAL COMMAND DATA
	MDQM	
	MLD	MEMORY DATA INPUT/OUTPUT
	MPEG	MEMORY DATA I/O MASK MEMORY SERIAL COMMAND LOAD MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	
	PDVD	PLL CLOCK
	PEAK	DVD TRACKING PHASE DIFFERENCE
	PLLCLK /	
	PLLOK	CAP. FOR PEAK HOLD
	PWMCTL	CHANNEL PLL CLOCK
	PWMDA	PLL LOCK
	PWMOA, B	PWM OUTPUT CONTROL
		PULSE WAVE MOTOR DRIVEA PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATAVALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA
		SYSTEM CLOCK

		<b>SYSTEM CLOCK</b>
<b>INITIAL/LOGO</b>		<b>ABBREVIATIONS</b>
<b>T</b>	<b>TE</b>	<b>TRACKING ERROR</b>
	<b>TIBAL</b>	<b>BALANCE CONTROL</b>
	<b>TID</b>	<b>BALANCE OUTPUT 1</b>
	<b>TIN</b>	<b>BALANCE INPUT</b>
	<b>TIP</b>	<b>BALANCE INPUT</b>
	<b>TIS</b>	<b>BALANCE OUTPUT 2</b>
	<b>TPSN</b>	<b>OP AMP INPUT</b>
	<b>TPSO</b>	<b>OP AMP OUTPUT</b>
	<b>TPSP</b>	<b>OP AMP INVERTED INPUT</b>
	<b>TRCRS</b>	<b>TRACK CROSS SIGNAL</b>
	<b>TRON</b>	<b>TRACKING ON</b>
	<b>TRSON</b>	<b>TRAVERSE SERVO ON</b>

<b>INITIAL/LOGO</b>		<b>ABBREVIATIONS</b>
<b>V</b>	<b>VBLANK</b>	<b>V BLANKING</b>
	<b>VCC</b>	<b>COLLECTOR POWER SUPPLY VOLTAGE</b>
	<b>VCDCONT</b>	<b>VIDEO CD CONTROL (TRACKING BALANCE)</b>
	<b>VDD</b>	<b>DRAIN POWER SUPPLY VOLTAGE</b>
	<b>VFB</b>	<b>VIDEO FEED BACK</b>
	<b>VREF</b>	<b>VOLTAGE REFERENCE</b>
	<b>VSS</b>	<b>SOURCE POWER SUPPLY VOLTAGE</b>
<b>W</b>	<b>WAIT</b>	<b>BUS CYCLE WAIT</b>
	<b>WDCK</b>	<b>WORD CLOCK</b>
	<b>WEH</b>	<b>WRITE ENABLE HIGH</b>
	<b>WSR</b>	<b>WORD SELECT RECEIVER</b>

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

## 18. Block Diagram

### 18.1. Power Supply Block Diagram

### 18.2. Analog Video Block Diagram

### 18.3. Analog Audio Block Diagram

### 18.4. Timer Block Diagram

### 18.5. Digital Block Diagram

### 18.6. Digital Block IC Pin Terminal Chart (TC1-22)

## 19. Schematic Diagram

### 19.1. Interconnection Schematic Diagram

### 19.2. Main Power Schematic Diagram

### 19.3. Sub Power Section (Main P.C.B. (1/5)) Schematic Diagram (P)

**19.4. Main Net Section (Main P.C.B. (2/5)) Schematic Diagram (M)**

**19.5. Video I/O Section (Main P.C.B. (3/5)) Schematic Diagram (V)**

**19.6. Audio Main Section (Main P.C.B. (4/5)) Schematic Diagram (A)**

**19.7. Timer Section (Main P.C.B. (5/5)) Schematic Diagram (T)**

**19.8. Glue Net Section (Digital P.C.B. (1/5)) Schematic Diagram (GN)**

**19.9. AV Encoder Section (Digital P.C.B. (2/5)) Schematic Diagram (EN)**

**19.10. Real Time Stream Control (RTSC) Section (Digital P.C.B. (3/5)) Schematic Diagram (TR)**

**19.11. AV Decoder/Main CPU Section (Digital P.C.B. (4/5)) Schematic Diagram (MC)**

**19.12. Audio I/O Section (Digital P.C.B. (5/5)) Schematic Diagram (AI)**

**19.13. IR Schematic Diagram**

**19.14. Front (R) Schematic Diagram**

## **20. Print Circuit Board**

**20.1. Power P.C.B.**

**20.2. Main P.C.B.**

**20.2.1. Main P.C.B. (1/4 Section)**

**20.2.2. Main P.C.B. (2/4 Section)**

**20.2.3. Main P.C.B. (3/4 Section)**

**20.2.4. Main P.C.B. (4/4 Section)**

**20.2.5. Main P.C.B. Address Information**

**20.3. Digital P.C.B.**

**20.3.1. Digital P.C.B. (Component Side)**

**20.3.2. Digital P.C.B. (Foil Side)**

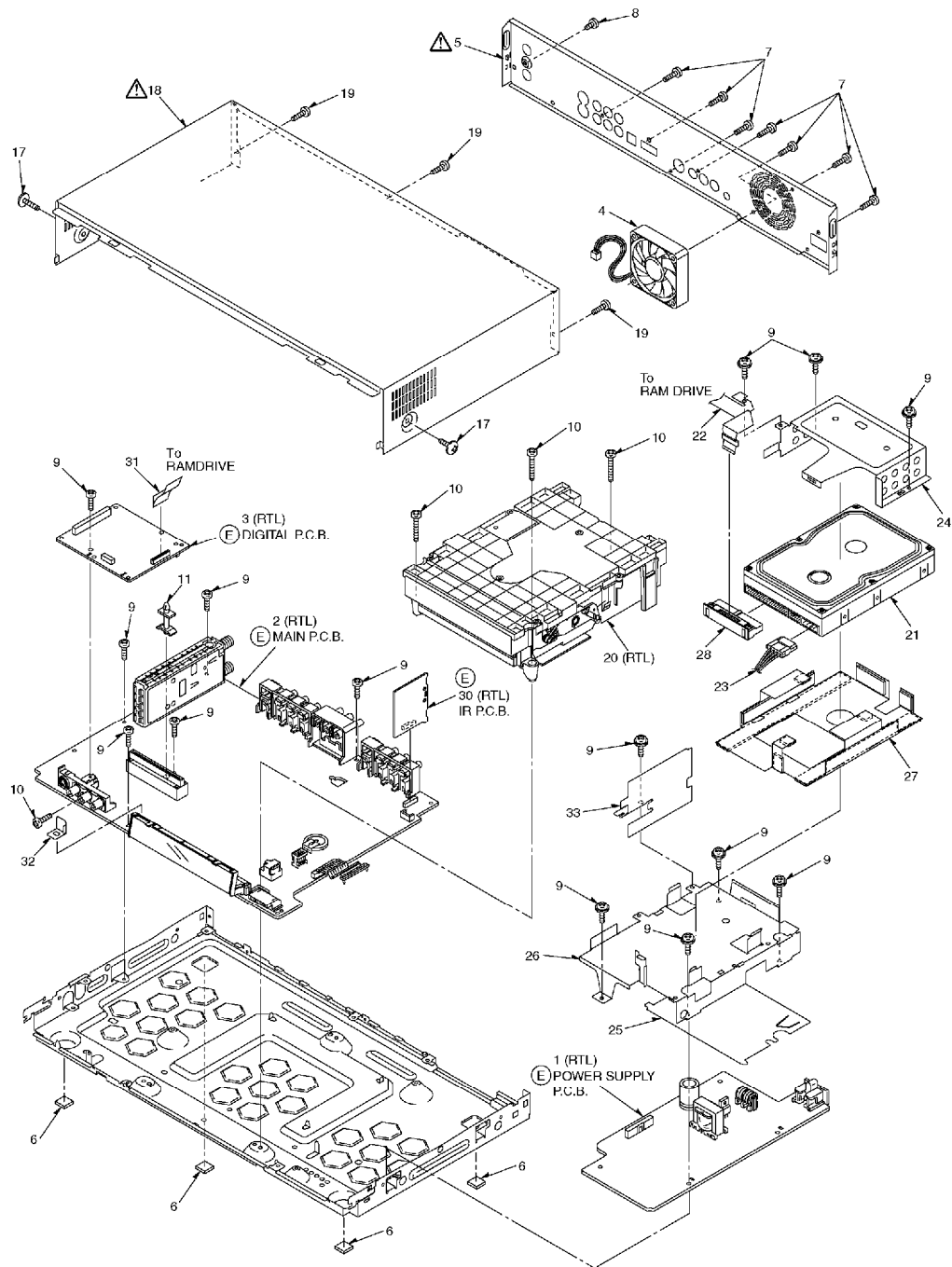
**20.3.3. Digital P.C.B. Address Information**

## 20.4. IR P.C.B.

## 20.5. Front (R) P.C.B.

# 21. Exploded Views

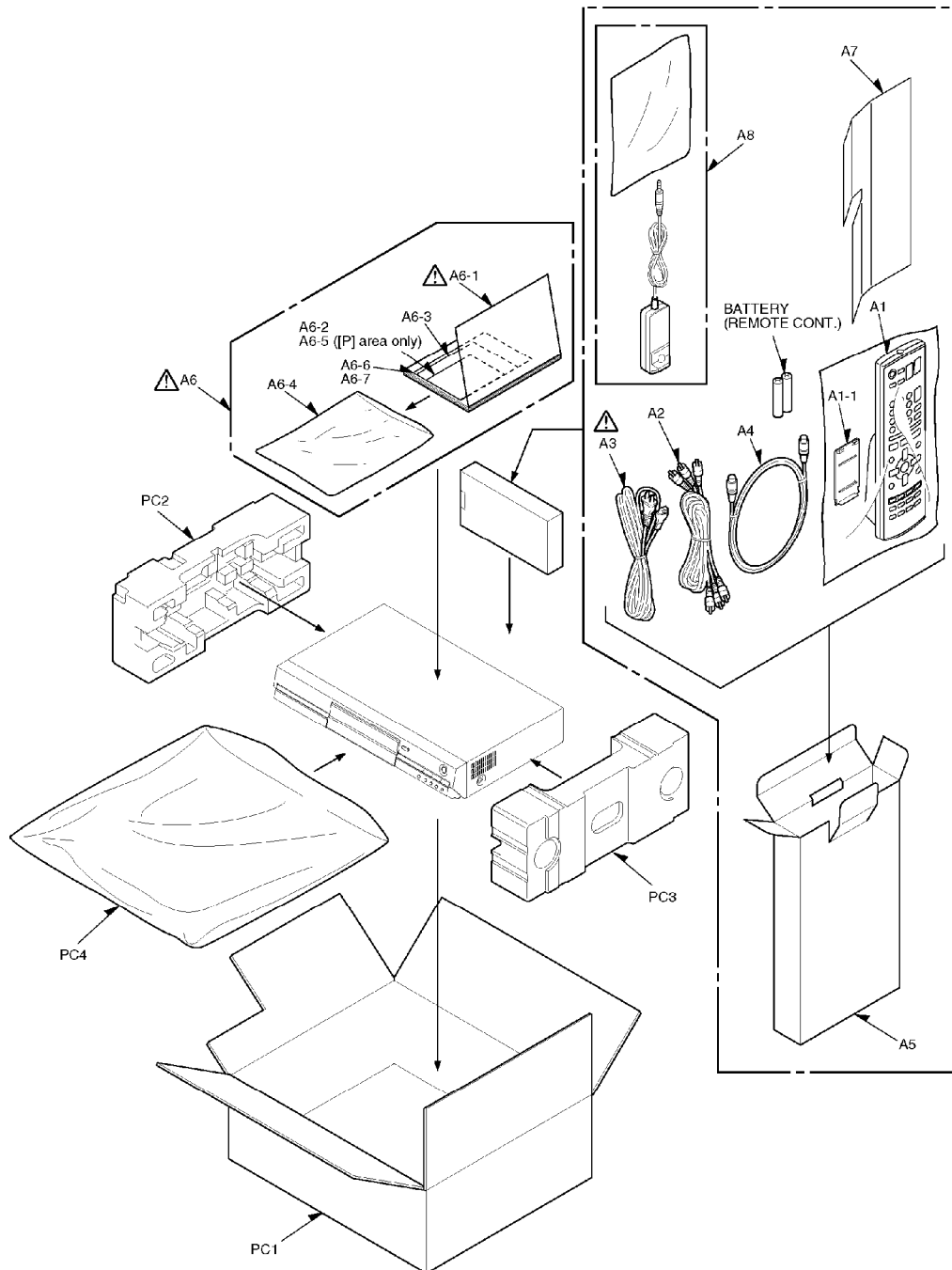
## 21.1. Casing Parts & Mechanism Section 1



## 21.2. Casing Parts & Mechanism Section 2







## 22. Replacement Parts List

### Notes:

#### \*Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

\*Warning: This product uses a laser diode. Refer to caution statements.




\*Capacity values are in microfarads (  $\mu$  F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).



\*Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).

\*The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

\*“<IA>”-“<IB>”, marks in Remarks indicate languages of instruction manuals. [<IA>: English, <IB>: Canadian French] All parts are supplied by S.P.C..

\*Supply of CD-ROM, in accordance with license protection, is allowable as replacement parts only for customers who accidentally damaged or lost their own.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	01	CASING/ACCESSORY/PACKING		
<a href="#">1</a>	VEP01950B	POWER SUPPLY P.C.B.	1	(RTL)
<a href="#">2</a>	REP3662F	MAIN P.C.B.	1	(RTL)
<a href="#">3</a>	REP3774G	DIGITAL P.C.B.	1	(P)
3	RFKBE85HPC	DIGITAL P.C.B.	1	(PC)
<a href="#">4</a>	L6FAKCCE0002	FAN MOTOR	1	
<a href="#">5</a>	RGR0350E-C	REAR PANEL	1	(P) 
5	RGR0350E-D	REAR PANEL	1	(PC) 
<a href="#">6</a>	RKA0144-K	FOOT RUBBER	4	
7	VHD0690	SCREW	7	
8	XSN3+4FZ	SCREW	1	
9	RHD30111	SCREW	14	
10	RHD30115	SCREW	4	
<a href="#">11</a>	RMX0298	PCB SPACER	1	
<a href="#">12</a>	RYP1243A-S	FRONT PANEL ASS'Y	1	
<a href="#">12-1</a>	RKF0700-S	TRAY DOOR	1	
<a href="#">12-2</a>	RGK1810-S	TRAY ORNAMENT	1	
<a href="#">12-3</a>	VMB3410	SPRING	1	
<a href="#">12-4</a>	RGU2318A-S	OPERATION BUTTON	1	
<a href="#">12-5</a>	RGU2289-S	POWER BUTTON	1	
<a href="#">12-6</a>	RGU2291A-Q	REC BUTTON	1	
<a href="#">12-7</a>	RGK1774-S	FRONT ORNAMENT(L)	1	
<a href="#">12-8</a>	RGK1775-S	FRONT ORNAMENT(R)	1	
<a href="#">12-9</a>	RGK1773-S	REC BUTTON RING	1	
<a href="#">12-10</a>	RGL0663-Q	PANEL LIGHT	1	
<a href="#">12-11</a>	RKF0689G-S	PANEL DOOR	1	
<a href="#">12-12</a>	RGK1811-S	FL ORNAMENT	1	
<a href="#">12-13</a>	VGB0560	PANASONIC BADGE	1	
12-14	RHD26016	SCREW	1	
<a href="#">12-15</a>	RMX0299	DAMPER SHEET	1	
<a href="#">12-16</a>	RMR1637-W	REFLECTOR DVD	1	
<a href="#">12-17</a>	RMR1638-W	REFLECTOR HDD	1	
12-18	XTN2+6G	SCREW	2	
<a href="#">12-19</a>	RMR1655-W	REFLECTOR COVER	1	
<a href="#">13</a>	REP3713B	FRONT(R) P.C.B.	1	(RTL)
<a href="#">14</a>	RMC0595	EARTH PLATE	1	
<a href="#">15</a>	RMA1778	FRONT ANGLE	1	
16	XTBS26+10J	SCREW	6	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
17	RHD30113	SCREW	2	
18	RKM0508-S	TOP COVER	1	
19	VHD0690	SCREW	3	
20	VXY1814	RAM DRIVE UNIT	1	(RTL)
21	RFKV0031HDK	HDD 120GB	1	
22	VEK0G75	FFC(42P)	1	
23	VEE0Z41	WIRE WITH CONNECTOR	1	
24	RMA1835	HDD HOLDER	1	
25	RMZ0747	INSULATED SHEET	1	
26	RMA1834	HDD BRACKET	1	
27	RXQ1208	SUPER SHEET UNIT	1	
28	K1MZ40Z00002	HDD CONNECTOR	1	
30	REP3763A	IR P.C.B.	1	(RTL)
31	VWJ1731	FFC(42P)	1	
32	RMR1656-W	LED COVER	1	
33	RMV0282	BARRIER	1	
A1	EUR7721KG0	REMOTE CONTROL ASS'Y	1	
A1-1	UR77EC2003A	BATTERY COVER	1	
A2	K2KA6CA00001	AV CORD	1	
A3	K2CB2CB00006	AC CORD	1	
A4	VJA1125	RF COAXIAL CABLE	1	K2KZ2BA00001
A5	RPQF0250	ACCESSORY CASE	1	
A6	RQF5607	FAN BAG ASS'Y	1	(P) 
A6	RQF5608	FAN BAG ASS'Y	1	(PC) 
A6-1	RQT7398-C	OPERATING INSTRUCTIONS	1	<IA>(PC) 
A6-1	RQT7305-P	OPERATING INSTRUCTIONS	1	<IB>(P) 
A6-2	RQCB0833	CCP SHEET	1	(P)
A6-3	RQCA1004	DISC CAUTION SHEET	1	
A6-4	RPF0378	POLYETHYLENE BAG(F.B.)	1	
A6-5	RQCC2431	DVD MEDIA SHEET	1	(P)
A6-6	RQCA1119	HDD CAUTION SHEET	1	
A6-7	RQCA1253	EPG SETTING SHEET	1	
A6-7	RQCA1254	EPG SETTING SHEET	1	(PC)
A7	RPQ1594	PAD	1	
A8	K2ZZ04C00001	IR BLUSTER	1	
PC1	RPG7127	PACKING CASE	1	(P)
PC1	RPG7128	PACKING CASE	1	(PC)
PC2	RPN1706A	CUSHION(A)	1	
PC3	RPN1706B	CUSHION(B)	1	
PC4	VPF0505	POLYETHYLENE BAG(UNIT)	1	
	02	REP3774G/RFKBE85HPC		(DIGITAL P.C.B.)
C3401	ECJ1VB0J105K	6.3V 1U	1	
C3402	ECJ0EC1H220J	50V 22P	1	
C3403	ECJ0EB1A104K	10V 0.1U	1	
C3404,05	ECJ0EC1H220J	50V 22P	2	
C3406	ECJ0EB1A104K	10V 0.1U	1	
C3407,08	ECJ0EC1H100D	50V 10P	2	
C3410	ECJ0EB1C103K	16V 0.01U	1	



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3411	ECST0JX476R	6.3V 47U	1	
C3413	ECJ0EB1A104K	10V 0.1U	1	
C3417-19	ECJ1VB0J105K	6.3V 1U	3	
C3420	ECJ0EB1C103K	16V 0.01U	1	
C3421	ECJ0EB1A104K	10V 0.1U	1	
C3422	ECJ0EB1C103K	16V 0.01U	1	
C3423-28	ECJ0EB1A104K	10V 0.1U	6	
C3429,30	ECJ2FB0J106K	6.3V 10U	2	F1J0J106A013
C3431	ECJ0EB1A104K	10V 0.1U	1	
C3432	ECJ1VB0J105K	6.3V 1U	1	
C3433	ECJ0EB1A104K	10V 0.1U	1	
C3435,36	ECJ0EB1A104K	10V 0.1U	2	
C3440	EEH0B0J101P	6.3V 100P	1	
C3441	ECJ0EB1A104K	10V 0.1U	1	
C3502	ECJ0EB1C103K	16V 0.01U	1	
C4411	ECST1AY106R	10V 10U	1	
C4412	EEH0B0J470R	6.3V 47P	1	
C4413	EEH0B0J101P	6.3V 100P	1	
C4414,15	ECJ0EF1C104Z	16V 0.1U	2	
C4416	F2H0J331A016	6.3V 330U	1	
C4417	ECJ0EF1C104Z	16V 0.1U	1	
C4418	EEH0B0J101P	6.3V 100P	1	
C4421-26	ECJ0EB1E102K	25V 1000P	6	
C4427	EEH0B0J470R	6.3V 47P	1	
C4428	ECJ0EF1C104Z	16V 0.1U	1	
C4429	ECJ0EB1A104K	10V 0.1U	1	
C4430	ECST1AY106R	10V 10U	1	
C4431,32	ECJ0EF1C104Z	16V 0.1U	2	
C4433	EEH0B1C100R	16V 10P	1	
C4434	ECJ0EF1C104Z	16V 0.1U	1	
C6001	ECJ0EF1C104Z	16V 0.1U	1	
C6002	ECJ2FB0J106K	6.3V 10U	1	F1J0J106A013
C6003	ECJ0EB1C103K	16V 0.01U	1	
C9001,02	ECJ0EC1H470J	50V 47P	2	
C50001	ECJ1VB0J105K	6.3V 1U	1	
C50002	F1K0J226A004	6.3V 22U	1	
C50004,05	ECJ0EB1A104K	10V 0.1U	2	
D3401,02	MA3S132E0L	DIODE	2	
D4401	MA3Z142K0LG	DIODE	1	
FL3401,02	F1H0J4740004	FILTER	2	
FL3404	F1H0J4740004	FILTER	1	
FL3406,07	F1H0J4740004	FILTER	2	
FL3409-12	F1H0J4740004	FILTER	4	
FL3414-26	F1H0J4740004	FILTER	13	
FL3429	F1H0J4740004	FILTER	1	
FL3431	F1H0J4740004	FILTER	1	
FL3433-35	F1H0J4740004	FILTER	3	
FL3501,02	F1H0J4740004	FILTER	2	
FL3505-16	F1H0J4740004	FILTER	12	
FL4403-05	F1H0J4740004	FILTER	3	
FL6001-18	F1H0J4740004	FILTER	18	
FL6020-23	F1H0J4740004	FILTER	4	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
FL6701-03	F1H0J4740004	FILTER	3	
FL50001-06	F1H0J4740004	FILTER	6	
FP3501	K1MN40A00022	CONNECTOR(40P)	1	
IC3401	AN13310B-VB	IC	1	
IC3402	C3ABMG000092	IC	1	
IC3404	MN85573R	IC	1	
IC3406	C1DB00001110	IC	1	
IC3408	C3ABPJ000048	IC	1	
IC3409	C0DBZGC00066	IC	1	
IC3501	MN88302R	IC	1	
IC3502	C3ABRG000036	IC	1	
IC4404	C0FBBK000035	IC	1	
IC4406	C0FBAK000008	IC	1	
IC4407	C0JBAA000257	IC	1	
IC4408	C0JBAD000107	IC	1	
IC4409	C0CBCBD00002	IC	1	
IC6001	MN2DS0011-HR	IC	1	
IC6002	C0EBE0000130	IC	1	
IC6003	C3CBLD000091	IC	1	
IC6004	74LVC244APWL	IC	1	C0JBAZ001466
IC6005,06	C3ABRG000036	IC	2	
IC6701	C1ZBZ0002433	IC	1	
IC6703	REP3774G	DIGITAL P.C.B.	1	(P)
IC6703	RFKBE85HPC	DIGITAL P.C.B.	1	(PC)
IC50001,02	C3ABPG000133	IC	2	
LB3404,05	J0JHC0000032	COIL	2	
LB3408,09	J0JHC0000032	COIL	2	
LB4401-04	J0JGC0000020	COIL	4	
LB4405	J0JHC0000032	COIL	1	
LB6001-04	J0JHC0000032	COIL	4	
LB9001,02	J0JHC0000032	COIL	2	
LB9006,07	J0JCC0000103	COIL	2	
LB9008	J0JHC0000045	COIL	1	
LB9009	J0JHC0000046	COIL	1	
LB50001-05	J0JHC0000032	COIL	5	
P6002	K1KA06A00394	CONNECTOR(6P)	1	
P9001	K1KB88A00002	CONNECTOR(88P)	1	
Q6001,02	B1ABCF000114	TRANSISTOR	2	
Q6701-05	B1ABCF000114	TRANSISTOR	5	
Q50001-05	B1ADCF000081	TRANSISTOR	5	
QR3502,03	UN5213TX	TRANSISTOR	2	UNR521300L
R3405	ERJ2GEJ103	1/16W 10K	1	
R3407	ERJ2GE0R00X	1/16W 0	1	
R3409	ERJ2GE0R00X	1/16W 0	1	
R3410,11	ERJ2GEJ101	1/16W 100	2	
R3412	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3414	ERJ2GEJ330X	1/16W 33	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3416	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R3417,18	ERJ2GEJ103	1/16W 10K	2	
R3419-23	ERJ2GEJ220X	1/16W 22	5	ERJ2RMJ220X
R3427	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3430	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3432-34	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3436	ERJ2GEJ470	1/16W 47	1	
R3440	ERJ2GEJ103	1/16W 10K	1	
R3442	ERJ2GEJ103	1/16W 10K	1	
R3443-45	ERJ2GE0R00X	1/16W 0	3	
R3447	ERJ2RHD682	1/16W 6.8K	1	
R3448	ERJ2GEJ562X	1/16W 5.6K	1	
R3449	ERJ2RHD682	1/16W 6.8K	1	
R3450	ERJ2GEJ104	1/16W 100K	1	
R3451	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3452	ERJ2GE0R00X	1/16W 0	1	
R3453	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3454	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R3455	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3456	ERJ2GEJ470	1/16W 47	1	
R3457	ERJ2GE0R00X	1/16W 0	1	
R3458	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3460-62	ERJ2GEJ470	1/16W 47	3	
R3463,64	ERJ2GE0R00X	1/16W 0	2	
R3472,73	ERJ2GEJ220X	1/16W 22	2	ERJ2RMJ220X
R3476	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R3501-03	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3509	ERJ2GEJ330X	1/16W 33	1	
R3510,11	ERJ2GEJ103	1/16W 10K	2	
R3514	ERJ2GEJ105	1/16W 1M	1	
R3519-22	ERJ2GEJ330X	1/16W 33	4	
R3523	ERJ2GEJ103	1/16W 10K	1	
R3524	ERJ2GEJ330X	1/16W 33	1	
R3525	ERJ2GEJ103	1/16W 10K	1	
R3526-28	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3530	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R3531	ERJ2GEJ820X	1/16W 82	1	
R3532	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R3533	ERJ2GEJ101	1/16W 100	1	
R3535	ERJ2GEJ820X	1/16W 82	1	
R3537	ERJ2GEJ562X	1/16W 5.6K	1	
R3541,42	ERJ2GEJ103	1/16W 10K	2	
R3543	ERJ2GE0R00X	1/16W 0	1	
R3548	ERJ2GEJ330X	1/16W 33	1	
R4418-27	ERJ2GE0R00X	1/16W 0	10	
R4428	ERJ3GEY0R00V	1/10W 0	1	
R4433-35	ERJ3GEY0R00V	1/10W 0	3	
R4436	ERJ2GEJ221	1/16W 220	1	
R4437-39	ERJ2GE0R00X	1/16W 0	3	
R4450-52	ERJ2GE0R00X	1/16W 0	3	
R4453	ERJ2GEJ562X	1/16W 5.6K	1	
R4454-57	ERJ2GE0R00X	1/16W 0	4	
R6001	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6002	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6003	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R6004	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6005	ERJ2GEJ103	1/16W 10K	1	
R6006	ERJ2GEJ153	1/16W 15K	1	
R6007	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6008	ERJ2GEJ103	1/16W 10K	1	
R6009,10	ERJ2GEJ330X	1/16W 33	2	
R6011	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6013	ERJ2GEJ103	1/16W 10K	1	
R6014-17	ERJ2GEJ104	1/16W 100K	4	
R6018,19	ERJ2GEJ220X	1/16W 22	2	ERJ2RMJ220X
R6020	ERJ2GE0R00X	1/16W 0	1	
R6021,22	ERJ2GEJ470	1/16W 47	2	
R6023	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6025	ERJ2GEJ103	1/16W 10K	1	
R6028	ERJ2GEJ470	1/16W 47	1	
R6029	ERJ2GEJ103	1/16W 10K	1	
R6031	ERJ2GEJ470	1/16W 47	1	
R6035	ERJ2GEJ470	1/16W 47	1	
R6036	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6037	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6039	ERJ2GEJ103	1/16W 10K	1	
R6040	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6701	ERJ2GEJ104	1/16W 100K	1	
R6703	ERJ2GEJ103	1/16W 10K	1	
R6706,07	ERJ2GEJ470	1/16W 47	2	
R6709,10	ERJ2GEJ332X	1/16W 3.3K	2	ERJ2RMJ332X
R6711,12	ERJ2GEJ470	1/16W 47	2	
R6713	ERJ2GEJ103	1/16W 10K	1	
R6714	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6715	ERJ2GEJ470	1/16W 47	1	
R6716,17	ERJ2GEJ333X	1/16W 33K	2	ERJ2RMJ333X
R6718	ERJ2GE0R00X	1/16W 0	1	
R6720-28	ERJ2GEJ470	1/16W 47	9	
R6729	ERJ2GEJ104	1/16W 100K	1	
R6730	ERJ2GEJ103	1/16W 10K	1	
R6731	ERJ2GEJ222X	1/16W 22K	1	ERJ2RMJ222X
R6733	ERJ2GEJ103	1/16W 10K	1	
R6735	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6737,38	ERJ2GEJ470	1/16W 47	2	
R6739	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R6750,51	ERJ2GEJ470	1/16W 47	2	
R6752	ERJ2GEJ101	1/16W 100	1	
R6753-56	ERJ2GEJ470	1/16W 47	4	
R50001	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R50002	ERJ2GE0R00X	1/16W 0	1	
R50003	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R50004	ERJ2GE0R00X	1/16W 0	1	
R50005	ERJ2GEJ330X	1/16W 33	1	
R50006,07	ERJ2GEJ470	1/16W 47	2	
R50008	ERJ2GEJ100	1/16W 10	1	
R50009	ERJ2GEJ103	1/16W 10K	1	
R50010	ERJ2RHD332	1/16W 3.3K	1	
R50011	ERJ2RHD223X	1/16W 22K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R50012,13	ERJ2GEO00X	1/16W 0	2	
R50015	ERJ2RHD333	1/16W 33K	1	
R50016	ERJ2RHD152	1/16W 1.5K	1	
R50017	ERJ2RHD153	1/16W 15K	1	
R50018	ERJ3RBD151	1/16W 150	1	
R50019	ERJ2GEJ330X	1/16W 33	1	
R50020	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50021	ERJ3RED820	1/16W 82	1	
R50022	ERJ2GEJ330X	1/16W 33	1	
R50023	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50024	ERJ3RED820	1/16W 82	1	
R50025	ERJ2GEJ330X	1/16W 33	1	
R50026	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50027	ERJ3RBD151	1/16W 150	1	
R50028	ERJ2GEJ330X	1/16W 33	1	
R50029	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50030	ERJ3RED330	1/16W 33	1	
R50031	ERJ3RBD151	1/16W 150	1	
R50032	ERJ2GEJ330X	1/16W 33	1	
R50033	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50034,35	ERJ3RED220	1/16W 22	2	
R50036-38	ERJ2GEJ470	1/16W 47	3	
R50039	ERJ2GEJ820X	1/16W 82	1	
RX3401-17	D1H82204A024	RESISTOR-RESISTOR	17	
RX3421,22	D1H82204A024	RESISTOR-RESISTOR	2	
RX3433-44	D1H82204A024	RESISTOR-RESISTOR	12	
RX3501-04	D1H82204A024	RESISTOR-RESISTOR	4	
RX3505-08	D1H83304A024	RESISTOR-RESISTOR	4	
RX3515-19	D1H83304A024	RESISTOR-RESISTOR	5	
RX3520-26	D1H82204A024	RESISTOR-RESISTOR	7	
RX3527-32	D1H81034A024	RESISTOR-RESISTOR	6	
RX3538-40	D1H84734A024	RESISTOR-RESISTOR	3	
RX6001	D1H81034A024	RESISTOR-RESISTOR	1	
RX6002-04	D1H84704A024	RESISTOR-RESISTOR	3	
RX6005,06	D1H83304A024	RESISTOR-RESISTOR	2	
RX6007	D1H84704A024	RESISTOR-RESISTOR	1	
RX6009-26	D1H83304A024	RESISTOR-RESISTOR	18	
RX6027-32	D1H84704A024	RESISTOR-RESISTOR	6	
RX6033,34	D1H83324A013	RESISTOR-RESISTOR	2	
RX6035,36	D1H83334A024	RESISTOR-RESISTOR	2	
RX6037	D1H81034A024	RESISTOR-RESISTOR	1	
RX6038	D1H83304A024	RESISTOR-RESISTOR	1	
RX6039-42	D1H84704A024	RESISTOR-RESISTOR	4	
RX6043	D1H81034A024	RESISTOR-RESISTOR	1	
RX6044	D1H83334A024	RESISTOR-RESISTOR	1	
RX6701,02	D1H81034A024	RESISTOR-RESISTOR	2	
RX6703-06	D1H84704A024	RESISTOR-RESISTOR	4	
RX6708	D1H84704A024	RESISTOR-RESISTOR	1	
RX6711-13	D1H83324A013	RESISTOR-RESISTOR	3	
RX6716	D1H84704A024	RESISTOR-RESISTOR	1	
RX6717-19	D1H83334A024	RESISTOR-RESISTOR	3	
RX6720-23	D1H83324A013	RESISTOR-RESISTOR	4	
RX6724	D1H84704A024	RESISTOR-RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RX6726-28	D1H84704A024	RESISTOR-RESISTOR	3	
RX6729,30	D1H81034A024	RESISTOR-RESISTOR	2	
RX6731-34	D1H84704A024	RESISTOR-RESISTOR	4	
RX6735	D1H82224A024	RESISTOR-RESISTOR	1	
RX6736	D1H81034A024	RESISTOR-RESISTOR	1	
RX6737	D1H84724A024	RESISTOR-RESISTOR	1	
RX6738	D1H83334A024	RESISTOR-RESISTOR	1	
RX50001-16	D1H84704A024	RESISTOR-RESISTOR	16	
X3401	H0J270500069	CRYSTAL OSCILLATOR	1	
X3501	H2D330500001	CRYSTAL OSCILLATOR	1	
■	03	REP3662F		(MAIN P.C.B.)
B7501	CR2354-1GUF	LITHIUM BATTERY	1	
C1503	ECJ1VB1A105K	10V 1U	1	F1H1A105A028
C1505	F2A1A470A388	10V 47U	1	
C1512	ECJ1VB0J105K	6.3V 1U	1	
C1513	ECJ1VB1A105K	10V 1U	1	F1H1A105A028
C1514	ECJ1VB0J105K	6.3V 1U	1	
C1515	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C1516	ECJ1VB1A105K	10V 1U	1	F1H1A105A028
C1518	F2A1A470A388	10V 47U	1	
C1519	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C1520	ECJ1VB1A105K	10V 1U	1	F1H1A105A028
C1521	ECJ1VB0J105K	6.3V 1U	1	
C1522	ECJ1VC1H331J	50V 330P	1	
C1523	ECJ1VB1A105K	10V 1U	1	F1H1A105A028
C1524	F2A1A470A388	10V 47U	1	
C1527,28	ECJ1VB0J105K	6.3V 1U	2	
C1531	F2A1A470A388	10V 47U	1	
C1533,34	ECJ1VB0J105K	6.3V 1U	2	
C1537	EEUFC1E101S	25V 100U	1	
C1539	F2A0J102A256	6.3V 1000U	1	
C1540	F2A1E4700048	25V 47U	1	
C1541	F2A1A471A211	10V 470U	1	
C1543	F2A1E221A210	25V 220U	1	
C3001	ECJ1VC1H561J	50V 560P	1	
C3005	ECJ1VB1C333K	16V 0.033U	1	
C3006-08	ECJ1XB1C104K	16V 0.1U	3	ECJ1VB1C104K
C3010-17	ECJ1VB1H103K	50V 0.01U	8	
C3018	F2A1E4700048	25V 47U	1	
C3019-21	ECJ1VB1H103K	50V 0.01U	3	
C3022	F2A0J1020045	6.3V 1000U	1	
C3023	F2A1A1010072	10V 100U	1	
C3024	F2A0J1020045	6.3V 1000U	1	
C3025	F2A1A1010072	10V 100U	1	
C3026	F2A0J1020045	6.3V 1000U	1	
C3027,28	F2A1A1010072	10V 100U	2	
C3029	F2A0J1020045	6.3V 1000U	1	
C3030	F2A1A1010072	10V 100U	1	
C3031	F2A0J1020045	6.3V 1000U	1	
C3032,33	ECJ1VB0J105K	6.3V 1U	2	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3034	ECJ1VB1H103K	50V 0.01U	1	
C3035,36	F2A1H2200032	50V 22U	2	
C3037	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C3038	F2J1C4700005	16V 47U	1	
C3039	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C3040	ECJ1VB1H103K	50V 0.01U	1	
C3041	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C3042	F2J1C4700005	16V 47U	1	
C3043	ECJ1VB1H103K	50V 0.01U	1	
C3044	F2A1E4700048	25V 47U	1	
C3046,47	ECJ1VB1H103K	50V 0.01U	2	
C3901	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C3902	ECJ1VB1H103K	50V 0.01U	1	
C3909	ECJ1VB1H103K	50V 0.01U	1	
C3910,11	ECJ1XB1C104K	16V 0.1U	2	ECJ1VB1C104K
C3912	ECJ1VB1H103K	50V 0.01U	1	
C3917,18	ECJ1VB1H103K	50V 0.01U	2	
C4003-06	F2A1H1R0A494	50V 1U	4	
C4009,10	ECJ1VF1C104Z	16V 0.1U	2	
C4011	ECJ2VB1E104K	25V 0.1U	1	
C4013,14	F2A1H1R0A494	50V 1U	2	
C4016	F2A1C221A497	16V 220U	1	
C4017	ECJ1XC1H820J	50V 82P	1	ECJ1VC1H820J
C4019	ECJ1XC1H820J	50V 82P	1	ECJ1VC1H820J
C4022	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C4023	F2A1C471A498	16V 470U	1	
C4024,25	F2A1C470A494	16V 47U	2	
C4026,27	F2A1H1R0A494	50V 1U	2	
C4028,29	F2A1C100A494	16V 10U	2	
C4036	F2A1C470A494	16V 47U	1	
C4037	F2A1C221A497	16V 220U	1	
C4038	F2A1C470A494	16V 47U	1	
C4039-42	ECJ2VC1H102J	50V 1000P	4	
C4045,46	ECJ1VF1C104Z	16V 0.1U	2	
C4047	ECQV1H104JL	50V 0.1U	1	
C4049	F2A0J471A497	6.3V 470U	1	
C4050	ECQV1H104JL	50V 0.1U	1	
C4052	F2A1C471A498	16V 470U	1	
C4901	F2A0J470A179	6.3V 47U	1	
C4902	ECJ1VF1C104Z	16V 0.1U	1	
C4903	F2A0J470A179	6.3V 47U	1	
C4904	ECJ1VF1C104Z	16V 0.1U	1	
C4906	ECJ1VC1H220J	50V 22P	1	
C7401	ECJ1VC1H030C	50V 3P	1	
C7404	ECJ1VB1H103K	50V 0.01U	1	
C7405	F2A0J470A012	6.3V 47U	1	
C7406,07	ECJ1XB1C104K	16V 0.1U	2	ECJ1VB1C104K
C7416	ECJ1VB1H103K	50V 0.01U	1	
C7417	F2A1H1R00071	50V 1U	1	
C7432,33	F2A1C100A494	16V 10U	2	
C7436	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C7437	F2A0J470A012	6.3V 47U	1	
C7525	ECJ1VC1H101J	50V 100P	1	
C7526	ECJ1VF1C104Z	16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7528	ECJ1VF1C104Z	16V 0.1U	1	
C7550	ECJ1VB1H103K	50V 0.01U	1	
C7551	F2A1H2200032	50V 22U	1	
C7552	ECJ1VF1H104Z	50V 0.1U	1	
C7555	F2A1E2210050	25V 220U	1	
C7556	ECA1AHG221	10V 220U	1	
C7557	ECQB1H473KF	50V 0.047U	1	
C7558	F2A1H5600009	50V 56U	1	
C7559	ECQB1H223KF3	50V 0.022U	1	
C7560	F2A1H2200032	50V 22U	1	
C7565	ECJ2YB0J475K	6.3V 4.7U	1	F1J0J475A008
C7566,67	ECJ1XB1C104K	16V 0.1U	2	ECJ1VB1C104K
C7569	ECJ1VF1C104Z	16V 0.1U	1	
C7580-83	ECJ1VC1H101J	50V 100P	4	
C7584,85	ECJ1VC1H180J	50V 18P	2	
C7586	ECJ1VC1H220J	50V 22P	1	
C7587	ECJ1VC1H150J	50V 15P	1	
C7588	ECJ2YB0J475K	6.3V 4.7U	1	F1J0J475A008
C7589	ECJ1VF1C104Z	16V 0.1U	1	
C7595	ECJ1VF1C104Z	16V 0.1U	1	
C7596	ECJ1VC1H470J	50V 47P	1	
C7597	ECJ1VB1H103K	50V 0.01U	1	
C7598	ECJ1VC1H470J	50V 47P	1	
C7599	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C7600	ECJ1VC1H470J	50V 47P	1	
C7601	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C7602	ECJ1VB1H103K	50V 0.01U	1	
C7604	ECJ1VF1C104Z	16V 0.1U	1	
C7607	ECJ1VF1C104Z	16V 0.1U	1	
C7609,10	ECJ1VC1H100C	50V 10P	2	
C7611-13	ECJ1VB1H103K	50V 0.01U	3	
C7618	ECJ1VB1H103K	50V 0.01U	1	
C7620	ECJ1VB1H103K	50V 0.01U	1	
C7626	ECJ1VB1H103K	50V 0.01U	1	
C7633	F2A0J471A280	6.3V 470U	1	
C7636	ECJ1VF1A105Z	10V 1U	1	
C7637	ECJ1VB1H103K	50V 0.01U	1	
C7639	ECJ1VF1C104Z	16V 0.1U	1	
C7650	ECJ1VB1H103K	50V 0.01U	1	
C7652	ECJ1VF1A105Z	10V 1U	1	
C7653	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C7654	ECJ1VB1H103K	50V 0.01U	1	
C7657	ECJ1VF1H104Z	50V 0.1U	1	
D1501	MA165TA5	DIODE	1	MA2C165001VT
D4001,02	MA3Z142D0RG	DIODE	2	MA3Z142D0LG
D7401	MA4300N-M	DIODE	1	MAZ4300NM
D7501	MAZ4240NMF	DIODE	1	
D7502	B0AAGM000003	DIODE	1	B0AAGM000007
D7503	VSD0002	DIODE	1	B0HAGR000005
D7504,05	MA2C18500E	DIODE	2	
D7506	MAZ4300NLF	DIODE	1	
D7507	B0JDCE000002	DIODE	1	
D7511	B0JACE000001	DIODE	1	


Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D7512	B3AEA0000049	DIODE	1	
DP7501	A2BD00000074	FL DISPLAY TUBE	1	
IC1502	C0DBAHG00013	IC	1	
IC1505	C0CBCDD00008	IC	1	
IC1506	C0CBCDD00002	IC	1	
IC1507	C0CBCDD00006	IC	1	
IC1508	C0DBEGD00002	IC	1	
IC1509	C0DBEFG00003	IC	1	
IC1510	C0DBEGG00003	IC	1	
IC3001	C1AB00001979	IC	1	
IC4001	C1AB00001920	IC	1	
IC4004	C0CBCDC00026	IC	1	
IC4005	C0CBCDC00027	IC	1	
IC7404	C0BBBB000006	IC	1	
IC7501	C2CBJG000443	IC	1	
IC7502	C0HBB0000033	IC	1	
IC7503	C0EBJ0000110	IC	1	
IC7505	C0EBE0000194	IC	1	
IC7506	C0ABBA000146	IC	1	
IP7501	ICP-N10T104	IC PROTECTOR	1	B1ZAZ0000035 
JK3901	K1U822B00003	JACK,L1,L3	1	
JK3902	K1U820B00003	JACK,TV	1	
JK3903	K1U407B00003	JACK,AV OUT,OPTICAL OUT	1	
JK3904	K1U415B00001	JACK,L2	1	
K3001	ERJ3GEY0R00V	1/10W 0	1	
K7401	ERJ3GEY0R00V	1/10W 0	1	
K7403,04	ERJ3GEY0R00V	1/10W 0	2	
K7502	ERJ3GEY0R00V	1/10W 0	1	
K7506-10	ERJ3GEY0R00V	1/10W 0	5	
K7512	ERJ3GEY0R00V	1/10W 0	1	
L1501	G0A220G00018	COIL 22UH	1	
L3001,02	ELEXH220JBV	COIL 22UH	2	
L4901	ELESE220KA	COIL 22UH	1	
L7401	G0A220G00018	COIL 22UH	1	
L7502	ELESE101K	COIL 100UH	1	
LB1501	J0JHC0000032	COIL	1	
LB1503	J0JHC0000032	COIL	1	
LB1504,05	J0JKB0000003	COIL	2	
LB3905-10	J0JCC0000103	COIL	6	
LB3915-20	J0JCC0000103	COIL	6	
LB3924-29	J0JCC0000103	COIL	6	
LB4903-12	J0JCC0000103	COIL	10	
LB7402	J0JHC0000032	COIL	1	
LB7409,10	J0JHC0000032	COIL	2	
LB7411,12	ERJ3GEY0R00V	1/10W 0	2	
LB7413	J0JHC0000032	COIL	1	
LB7501	VLP0175	COIL	1	J0JCC0000060














Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB7502	ERJ3GEY0R00V	1/10W 0	1	
LB7503	J0JKB0000037	COIL	1	
LB7504	J0JGC0000020	COIL	1	
LB7505,06	J0JCC0000103	COIL	2	
LB7507,08	ERJ3GEY0R00V	1/10W 0	2	
P1501	K1KA08A00427	CONNECTOR(8P)	1	
P1502	K1KA23A00004	CONNECTOR(23P)	1	
P7402	K1KA88A00002	CONNECTOR(88P)	1	
P7503	K1KA03A00173	CONNECTOR(3P)	1	
P7504	K1KB12B00049	CONNECTOR(12P)	1	
PP7401	VJP3042G008W	CONNECTOR(8P)	1	K1KA08A00163
Q4001	2SB1218A	TRANSISTOR	1	
Q4002-05	2SD132800L	TRANSISTOR	4	
Q7401	2SB1218A	TRANSISTOR	1	
Q7503	2SD1994B	TRANSISTOR	1	
Q7504	2SD0601A	TRANSISTOR	1	
Q7507	2SB0709ARL	TRANSISTOR	1	
Q7508	2SD1819AWL	TRANSISTOR	1	
Q7512	2SD0874A0L	TRANSISTOR	1	
Q7517	2SD132800L	TRANSISTOR	1	
Q7520	2SD0601A	TRANSISTOR	1	
QR4001-04	UN5211	TRANSISTOR	4	UNR5211
QR7502	UN5212TX	TRANSISTOR	1	UNR521200L
QR7507	UN5113TW	TRANSISTOR	1	
R1501	ERJ3GEYJ822V	1/10W 8.2K	1	D0GB822JA002
R1502	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R1503	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R1504	ERDS2FJ271	1/4W 270	1	
R1506	ERDS2FJ271	1/4W 270	1	
R1507	ERJ3RED330	1/16W 33	1	
R1508	ERJ3RBD201	1/16W 200	1	
R1509	ERJ3RBD102V	1/16W 1K	1	
R1510	ERJ3RED220	1/16W 22	1	
R1511	ERJ3RBD182V	1/16W 1.8K	1	
R1512	ERJ3RBD202	1/16W 2K	1	
R1515,16	ERDS2FJ271	1/4W 270	2	
R3025	ERJ3RBD153	1/16W 15K	1	
R3026	ERJ3GEYJ105V	1/10W 1M	1	
R3027	ERJ3GEY0R00V	1/10W 0	1	
R3028	ERJ3GEYJ471V	1/10W 470	1	
R3029	ERJ3GEY0R00V	1/10W 0	1	
R3030	ERJ3EKF75R0	1/10W 75	1	
R3031	ERJ3GEY0R00V	1/10W 0	1	
R3032,33	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R3036	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R3038	ERJ3GEYJ330V	1/10W 33	1	D0GB330JA002
R3039,40	ERJ3GEYJ221V	1/10W 220	2	
R3041	ERJ3RBD104	1/16W 100K	1	
R3901,02	ERJ3EKF75R0	1/10W 75	2	



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3903	ERJ3GEYJ102V	1/10W 1K	1	
R3904,05	ERJ3EKF75R0	1/10W 75	2	
R3906	ERJ3GEYJ102V	1/10W 1K	1	
R3907-14	ERJ3EKF75R0	1/10W 75	8	
R3915,16	ERJ3GEYJ912V	1/10W 9.1K	2	
R3923-25	ERJ3EKF75R0	1/10W 75	3	
R3926	ERJ3GEYJ102V	1/10W 1K	1	
R3927-29	ERJ3EKF75R0	1/10W 75	3	
R4001-04	ERJ3GEYJ104	1/10W 100K	4	
R4008	ERJ3GEY0R00V	1/10W 0	1	
R4011-14	ERJ6GEYJ102V	1/8W 1K	4	
R4015,16	ERJ3GEYJ104	1/10W 100K	2	
R4017-20	ERJ3GEY0R00V	1/10W 0	4	
R4024,25	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R4026	JAR0816P123D	1/16W 12K	1	D0HB123ZA002
R4027	D0HB622ZA002	1/16W 6.2K	1	
R4028	JAR0816P123D	1/16W 12K	1	D0HB123ZA002
R4029	D0HB622ZA002	1/16W 6.2K	1	
R4031,32	ERJ6GEYJ102V	1/8W 1K	2	
R4037,38	ERJ3GEYJ104	1/10W 100K	2	
R4039	ERJ3GEY0R00V	1/10W 0	1	
R4042	ERJ3GEY0R00V	1/10W 0	1	
R4043,44	JAR0816P392D	1/16W 3900	2	D0HB392ZA002
R4045,46	D0HB622ZA002	1/16W 6.2K	2	
R4049-52	ERJ3GEYJ103V	1/10W 10K	4	D0GB103JA002
R4059,60	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R4061,62	ERJ3GEYJ681V	1/10W 680	2	D0GB681JA002
R4063,64	ERJ3GEYJ272V	1/10W 2.7K	2	
R4065,66	ERJ3GEYJ681V	1/10W 680	2	D0GB681JA002
R4067,68	ERJ3GEYJ272V	1/10W 2.7K	2	
R4069-72	ERJ3GEYJ221V	1/10W 220	4	
R4074,75	ERJ3GEY0R00V	1/10W 0	2	
R4077,78	ERJ3GEY0R00V	1/10W 0	2	
R4082	ERJ3GEY0R00V	1/10W 0	1	
R4901	ERJ3GEY0R00V	1/10W 0	1	
R4903	ERJ3GEY0R00V	1/10W 0	1	
R7403,04	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R7406,07	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R7418,19	ERG2SJ471E	2W 470	2	
R7442	ERJ3RBD222V	1/16W 2.2K	1	
R7443	ERJ3RBD102V	1/16W 1K	1	
R7444	ERJ3RBD153	1/16W 15K	1	
R7445	ERJ3RBD222V	1/16W 2.2K	1	
R7446	ERJ3RBD133V	1/16W 13K	1	
R7452	ERJ3GEYJ681V	1/10W 680	1	D0GB681JA002
R7454	ERJ3GEY0R00V	1/10W 0	1	
R7505	ERJ3RBD273V	1/16W 27K	1	
R7507	ERDS2FJ331	1/4W 330	1	
R7508	ERDS2FJ5R6	1/4W 5.6	1	
R7509	ERJ3GEYJ333V	1/10W 33K	1	D0GB333JA002
R7510	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R7511	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7512,13	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R7514	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002


Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7516	ERJ3GEY0R00V	1/10W 0	1	
R7519	ERJ3GEYJ102V	1/10W 1K	1	
R7520	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7521	ERJ3GEYG152	1/10W 1.5K	1	
R7522	ERJ3GEYG562V	1/10W 5.6K	1	
R7523	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7530-33	ERJ3GEYJ473V	1/10W 47K	4	D0GB473JA002
R7534-37	ERJ3GEYJ101	1/10W 100	4	D0GB101JA002
R7538	ERJ3GEYJ472V	1/10W 4.7K	1	
R7539	ERJ3GEY0R00V	1/10W 0	1	
R7540	ERJ3GEYD274V	1/10W 270K	1	ERA3YKD274V
R7541	ERJ3GEY0R00V	1/10W 0	1	
R7542	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7548	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7549	ERJ3GEYJ511	1/10W 510	1	
R7550,51	ERJ3GEYJ202V	1/10W 2K	2	
R7556,57	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R7561	ERDS2TJ392	1/4W 3.9K	1	
R7562-64	ERJ3GEYJ101	1/10W 100	3	D0GB101JA002
R7569	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7570	ERJ3GEYJ104	1/10W 100K	1	
R7583,84	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R7585	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7588	ERJ3GEYJ472V	1/10W 4.7K	1	
R7589-91	ERJ3RBD822	1/10W 8.2K	3	
R7595,96	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R7597	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7598	ERJ3GEYJ102V	1/10W 1K	1	
R7599	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R7600,01	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R7602	ERJ3GEYJ821V	1/10W 820	1	
R7603	ERJ3GEYJ183V	1/10W 18K	1	D0GB183JA002
R7604	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R7611	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7613	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7617	ERDS2FJ750	1/4W 75	1	
R7626	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7629	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7630	ERJ3GEYJ273V	1/10W 27K	1	D0GB273JA002
R7633	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7636-38	ERJ3GEYJ101	1/10W 100	3	D0GB101JA002
R7644	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7645	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
S7501	K0F111B00044	SWITCH	1	
T7501	ETS13TB119AP	TRANSFORMER	1	
TU7401	ENG6201DR	TV TUNER	1	
W601-03	ERJ3GEY0R00V	1/10W 0	3	
W604,05	ERJ6GEY0R00V	1/8W 0	2	
W606-10	ERJ3GEY0R00V	1/10W 0	5	
W611	ERJ6GEY0R00V	1/8W 0	1	

1999	2000	2001	2002	2003	2004
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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W612-18	ERJ3GEY0R00V	1/10W 0	7	
W622-24	ERJ3GEY0R00V	1/10W 0	3	
X7501	H0D100500016	CRYSTAL OSCILLATOR	1	
X7502	H0A327200026	OSCILLATOR	1	
ZJ7407,08	VJR0978	EARTH ANGLE	2	K9ZZ00000424
■	04	VEP01950B		(POWER SUPPLY P.C.B.)
C1120	ECQU2A104MLA	0.1U	1	
C1121	ECQU2A223MLC	0.022U	1	
C1125-27	ECKWNA102MEV	1000P	3	
C1143	EETHC2E151HY	250V 150U	1	
C1150	F2A1V5600013	35V 56U	1	
C1152	ECJ2XC1H101J	16V 100P	1	
C1153	ECUM1H183KBX	50V 0.018U	1	
C1154	ECJ2XB1H102K	50V 1000P	1	ECJ2VB1H102K
C1156	ECKW3A472KRP	1KV 4700P	1	
C1200	ECQV1H104JL	50V 0.1U	1	
C1201	ECJ2VB1E473K	25V 0.047U	1	
C1260,61	F2A1A6810017	10V 680U	2	
C1262	ECA1AHG221	10V 220U	1	
C1270,71	F2A1C6810023	16V 680U	2	
C1272,73	F2A1E2210050	25V 220U	2	
C1274	ECJ2VB1E104K	25V 0.1U	1	
C1400	EEUFM1E221	25V 220U	1	
C1401	F1K1C3350002	16V 3.3U	1	
C1402	ECJ2VB1H103K	50V 0.01U	1	
C1403	ECJ2XC1H331J	16V 330P	1	
C1404	ECJ2VB1H472K	50V 4700P	1	
C1405	ECUX1H681JCX	50V 680P	1	ECJ2VC1H681J
C1406	EEUFM1A681	10V 680U	1	
C1407	EEUFM1E221	25V 220U	1	
C1408,09	ECJ2VB1E104K	25V 0.1U	2	
C1410	ECJ2VB1H103K	50V 0.01U	1	
C1411	ECJ2VC1H680J	50V 68P	1	
C1412	ECJ2VB1H472K	50V 4700P	1	
C1413	F2A0J1520007	6.3V 1500U	1	
C1417-19	ECJ2FB0J106K	6.3V 10U	3	F1J0J106A014
C1420	F1K1C106A062	16V 10U	1	
C1421	ECJ2VB1E104K	25V 0.1U	1	
C1422	F1K1C106A062	16V 10U	1	
C1423	ECJ2FB0J106K	6.3V 10U	1	F1J0J106A014
C1501	EEUFM1C471L	16V 470U	1	
C1503	ECJ2VB1E104K	25V 0.1U	1	
C1504	ECJ2XC1H221J	50V 220P	1	ECJ2VC1H221J
C1505	ECJ2VB1E104K	25V 0.1U	1	
C1506	ECJ2XB1H102K	50V 1000P	1	ECJ2VB1H102K
C1507	ECJ2VB1E473K	25V 0.047U	1	
C1508	ECJ2XB1H102K	50V 1000P	1	ECJ2VB1H102K
C1509	ECJ2VB1H223K	50V 0.023U	1	
C1510	ECJ2VB1E104K	25V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1512	ECJ2VB1H103K	50V 0.01U	1	
C1513	F2A1A4710038	10V 470U	1	
C1514	ECJ2VB1H103K	50V 0.01U	1	
C1570	EEUFM1A102	10V 1000U	1	
D1110	ERZVGAD471	VARISTOR	1	
D1140	B0EDKT000002	DIODE	1	
D1151	B0HAGM000006	DIODE	1	
D1152	MAZ4091NMF	DIODE	1	
D1153	MAZ4270NMF	DIODE	1	
D1155	MAZ73000BC	DIODE	1	
D1156	MA2J11100L	DIODE	1	
D1261	B0JAQE000004	DIODE	1	
D1262,63	B0JAME000025	DIODE	2	
D1271	B0JAQG000005	DIODE	1	
D1400,01	MA2Q73800L	DIODE	2	
D1402	ERA15-02	DIODE	1	B0EAKM000016
D1500	MA2Q73800L	DIODE	1	
D1501	MA2J11100L	DIODE	1	
F1101	K5D162BK0005	FUSE	1	
IC1150	C0DACZH00004	IC	1	
IC1200	C0DAAMA00002	IC	1	
IC1270	C0DAZJH00003	IC	1	
IC1400	C0DAAJG00007	IC	1	
IC1401	C0DBAKG00005	IC	1	
IC1500	C0DBAZH00012	IC	1	
IC1501	C0EBJ0000143	IC	1	
IP1400	K5H2022A0013	IC PROTECTOR	1	
IP1401	K5H3022A0013	IC PROTECTOR	1	
IP1500	K5H3022A0013	IC PROTECTOR	1	
L1120,21	G0B100E00002	COIL 10UH	2	
L1260	G0A100H00014	COIL 10UH	1	
L1270	G0A100H00014	COIL 10UH	1	
L1400	G0A220G00018	COIL 22UH	1	
L1401	G0A330G00010	COIL 33UH	1	
L1402	G0A330ZA0030	COIL 33UH	1	
L1501	G0A220ZA0030	COIL 22UH	1	
L1503	G0A100H00014	COIL 10UH	1	
LB1123	J0JKB0000003	COIL	1	
LB1126	J0JHC0000012	COIL	1	
LB1400	J0JHC0000012	COIL	1	
LB1500	J0JHC0000012	COIL	1	
P1101	K2AB2H000004	AC INLET	1	
P1102	K1KB23A00002	CONNECTOR(FEMALE) 23P	1	
P1103	K1KA04A00192	CONNECTOR(4P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q1200	PC123ZY2	TRANSISTOR	1	B3PBA0000078 
Q1400	B1DHDD000022	TRANSISTOR	1	
QR1300,01	UNR221300L	TRANSISTOR	2	
QR1303,04	UNR221300L	TRANSISTOR	2	
QR1307,08	UNR221300L	TRANSISTOR	2	
R1120	ERDS1TJ474	1W 470K	1	
R1150	ERDS2FJ6R8	1/4W 6.8	1	
R1151	ERDS2FJ223	1/4W 22K	1	
R1152	ERDS2FJ103	1/4W 10K	1	
R1154	ERJ6RBD112	1/10W 1.1K	1	
R1156	ER0S2CHF1802	1/4W 18K	1	
R1157	ERJ6RED470	1/10W 47	1	
R1200	ERJ6GEYF473	1/8W 47K	1	
R1201	ERJ6ENF3001V	1/8W 3K	1	
R1203,04	ERJ6GEYG912	1/8W 9.1K	2	
R1205	ERJ6GEYF473	1/8W 47K	1	
R1206	ERJ6GEYG242	1/8W 2.4K	1	
R1207	ERJ6GEYJ103V	1/8W 10K	1	
R1208	ERJ6GEYG241	1/8W 240	1	
R1209	ERJ6GEYJ102V	1/8W 1K	1	
R1210	ERJ6GEYG103V	1/8W 47K	1	D0GD103GA005
R1270	ERJ6GEYJ472V	1/8W 4.7K	1	
R1310	ERJ6GEY0R00V	1/8W 0	1	
R1313	ERJ6GEYJ103V	1/8W 10K	1	
R1401	ERJ6GEYJ104V	1/8W 100K	1	
R1402	ERJ6RBD302	1/10W 3K	1	
R1404	ERJ6RBD102	1/10W 1K	1	
R1405	ERJ6GEYJ513V	1/8W 51K	1	
R1406	D1BFR039A010	1/10W 39	1	
R1407	ERJ6GEY0R00V	1/8W 0	1	
R1409	ERJ6RBD123	1/10W 12K	1	
R1410	ERJ6ENF3300	1/8W 3.3K	1	ERJ6RBD331V
R1411	ERJ6RBD822V	1/10W 8.2K	1	
R1500	ERJ6GEYJ470V	1/8W 47	1	
R1501	ERJ6RED394	1/10W 390K	1	
R1502	ERJ6GEYJ474V	1/8W 470K	1	
R1503	ERJ6ENF3303	1/8W 330K	1	
R1504	ERJ6RBD163	1/10W 16K	1	
R1505	ERJ6GEYJ3R3V	1/8W 3.3	1	D0GD3R3JA003
R1508-10	D1BDR1800001	1/10W 18	3	
R1513	ERJ6GEYJ103V	1/8W 10K	1	
R1514,15	ERJ6RBD102	1/10W 1K	2	
R1516	ERJ6RED470	1/10W 47	1	
R1517	ERJ6RBD103V	1/10W 10K	1	
R1518	ERJ6GEYF473	1/8W 47K	1	
T1151	G4D2A0000179	TRANSFORMER	1	
W501	ERJ6GEY0R00V	1/8W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
ZA1103,04	K3GD9BB00001	FUSE HOLDER	2	
ZA1105-07	VJR0978	EARTH ANGLE	3	K9ZZ00000424
ZA1150	VSC5606	HEAT CINK	1	
ZA1151	XTN3+8G	SCREW	1	
■	05	REP3763A		(IR P.C.B.)
C8001,02	ECJ1VC1H120J	50V 12P	2	
C8003	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
C8004	ECJ1VC1H101J	50V 100P	1	
C8005	EEEB0J470R	6.3V 47P	1	
C8006-08	ECJ1XB1C104K	16V 0.1U	3	ECJ1VB1C104K
C8010	ECJ1VC1H101J	50V 100P	1	
C8012	ECJ1XB1C104K	16V 0.1U	1	ECJ1VB1C104K
IC8001	C2CBJH000144	IC	1	
IC8002	C0EBJ0000319	IC	1	
JK8001	K2HC104B0028	JACK	1	
LB8001	J0JHC0000032	COIL	1	
P8001	VJS3042F008W	CONNECTOR(8P)	1	K1KB08B00028
Q8001-03	2SD0601A	TRANSISTOR	3	
Q8004	2SD132800L	TRANSISTOR	1	
Q8005	2SB071000L	TRANSISTOR	1	
R8001	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8002-05	ERJ3GEYJ101	1/10W 100	4	D0GB101JA002
R8006	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8009	ERJ3GEYD274V	1/10W 270K	1	ERA3YKD274V
R8010	ERJ3GEYJ752V	1/10W 7.5K	1	
R8012	ERJ3GEYJ102V	1/10W 1K	1	
R8013	ERJ3GEYJ472V	1/10W 4.7K	1	
R8016	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8017	ERJ6GEYJ241V	1/8W 240	1	
R8018	ERJ3GEYJ220V	1/10W 22	1	
R8019	ERJ3GEYJ752V	1/10W 7.5K	1	
R8021	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8023	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R8024	ERJ3GEYJ752V	1/10W 7.5K	1	
R8028	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8029	ERJ6GEYJ241V	1/8W 240	1	
R8030,31	ERJ3GEYJ221V	1/10W 220	2	
R8035	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R8036	ERJ3GEY0R00V	1/10W 0	1	
R8041	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
X8001	H0J160500027	OSCILLATOR	1	
ZJ8001	VMC1359	EARTH SPRING	1	



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	06	REP3713B		(FRONT(R) P.C.B.)
C7801	ECJ1VF1A105Z	10V 1U	1	
D7801	SLR-325MG	DIODE	1	B3ABA0000109
D7804,05	SLR-325MG	DIODE	2	B3ABA0000109
D7806	B3ACA0000252	DIODE	1	
IR7801	B3RAD0000071	REMOTE SENSOR	1	
K7801,02	ERJ3GEY0R00V	1/10W 0	2	
P7801	K1KA12B00136	CONNECTOR(12P)	1	
QR7801	UN2214	TRANSISTOR	1	UNR2214
QR7804-06	UN2214	TRANSISTOR	3	UNR2214
R7801	ERDS2FJ330	1/4W 33	1	
R7802	ERJ3GEYJ221V	1/10W 220	1	
R7805,06	ERJ3GEYJ221V	1/10W 220	2	
R7807	ERJ3GEYJ391V	1/10W 390	1	
R7809	ERJ3RBD272	1/16W 2.7K	1	
R7817	ERJ3RBD272	1/16W 2.7K	1	
R7818	ERJ3RBD222V	1/16W 2.2K	1	
R7819	ERA3YED332	1/16W 3.3K	1	
R7825	ERJ3RBD272	1/16W 2.7K	1	
R7826	ERJ3RBD222V	1/16W 2.2K	1	
R7827	ERA3YED332	1/16W 3.3K	1	
R7828	ERJ3RBD562V	1/16W 5.6K	1	
S7801	EVQ11G07K	SWITCH,OPEN/CLOSE	1	
S7802	EVQ11G07K	SWITCH,SKIP-F	1	
S7809	EVQ11G07K	SWITCH,CH-DOWN	1	
S7811	EVQ11G07K	SWITCH,REC	1	
S7812	EVQ11G07K	SWITCH,STOP	1	
S7813	EVQ11G07K	SWITCH,SKIP-R	1	
S7819	EVQ11G07K	SWITCH,CH-UP	1	
S7820	EVQ11G07K	SWITCH,TIME WARP	1	
S7821	EVQ11G07K	SWITCH,PLAY	1	
S7822	EVQ11G07K	SWITCH,SELECT	1	

## 23. Schematic Diagram for printing with A4 size

Ref No.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	0	0	0	0	0	0	0	0	4.7	2.4	0	2.3	5.0	5.0	0	0	5.0	0	0	0
PLAY	0	0	0	0	0	0	0	0	4.7	2.4	0	2.3	5.0	5.0	0	0	5.0	0	0	0
STOP	0	0	0	0	0	0	0	0	4.7	2.4	0	2.3	5.0	5.0	0	0	5.0	0	0	0
Ref No.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	0	0	0	0	0	0	4.2	4.2	4.4	0	0	0	0	0	5.0	0	0	0	0
PLAY	0	0	0	0	0	0	0	4.2	4.2	4.4	0	0	0	0	0	5.0	0	0	0	0
STOP	0	0	0	0	0	0	0	4.2	4.2	4.4	0	0	0	0	0	5.0	0	0	0	0
Ref No.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.0	0	0
PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.0	0	0
STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.0	0	0
Ref No.	IC8002																			
MODE	1	2	3	4	5															
REC	4.7	5.0	0	0	1.8															
PLAY	4.7	5.0	0	0	1.8															
STOP	4.7	5.0	0	0	1.8															
Ref No.	Q8001					Q8002				Q8003				Q8004				Q8005		
MODE	E	C	B			E	C	B		E	C	B		E	C	B		E	C	B
REC	4.4	4.4	4.6			3.9	4.2	4.3		4.9	5.0	5.0		0	5.0	0		0	0	0
PLAY	4.4	4.4	4.6			3.9	4.2	4.3		4.9	5.0	5.0		0	5.0	0		0	0	0
STOP	4.4	4.4	4.6			3.9	4.2	4.3		4.9	5.0	5.0		0	5.0	0		0	0	0

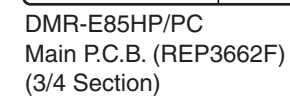
MAIN P.C.B.															
Integrated Circuit		P1502	C-1	LB7412	B-6	C3039	E-6	C7551	A-1	R3031	E-6	R4062	E-3	R7564	C-3
IC1502	E-7	P7402	B-6	LB7413	B-5	C3040	D-6	C7552	B-2	R3032	E-6	R4063	E-2	R7569	C-3
IC1505	C-2	P7503	E-1	LB7501	C-4	C3041	E-6	C7555	A-1	R3033	E-6	R4064	E-2	R7570	C-4
IC1506	B-6	P7504	A-1	LB7502	B-4	C3042	D-6	C7556	A-1	R3036	E-7	R4065	E-2	R7583	B-3
IC1507	C-2	PP7401	F-2	LB7503	B-2	C3043	E-6	C7557	B-2	R3038	D-6	R4066	E-2	R7584	B-3
IC1508	B-5	Diode		LB7504	B-2	C3044	E-6	C7558	A-1	R3039	D-6	R4067	E-3	R7585	C-3
IC1509	C-5	D1501	B-2	LB7505	B-2	C3046	E-7	C7559	B-2	R3040	D-6	R4068	E-2	R7588	C-4
IC1510	C-5	D4001	E-2	LB7506	B-2	C3047	E-7	C7560	A-1	R3041	D-6	R4069	F-2	R7589	B-3
IC3001	E-6	D4002	E-2	LB7507	B-3	C3901	A-7	C7565	A-7	R3901	F-6	R4070	F-3	R7590	B-3
IC4001	E-4	D7401	E-8	LB7508	B-3	C3902	A-7	C7566	A-7	R3902	F-6	R4071	F-2	R7591	B-3
IC4004	D-5	D7501	A-2	Capacitor		C3909	F-6	C7567	B-3	R3903	F-6	R4072	F-2	R7595	C-2
IC4005	E-2	D7502	B-2	C1503	E-7	C3910	F-6	C7569	A-7	R3904	F-6	R4074	D-4	R7596	C-2
IC7404	B-8	D7503	B-2	C1505	F-7	C3911	F-6	C7580	B-3	R3905	F-6	R4075	D-4	R7597	C-2
IC7501	B-3	D7504	B-2	C1512	B-2	C3912	F-6	C7581	B-3	R3906	F-6	R4077	D-5	R7598	C-2
IC7502	A-3	D7505	B-2	C1513	C-2	C3917	F-3	C7582	B-3	R3907	F-6	R4078	E-2	R7599	B-4
IC7503	C-2	D7506	B-2	C1514	C-2	C3918	F-3	C7583	B-3	R3908	F-6	R4082	E-3	R7600	B-4
IC7505	C-2	D7507	C-2	C1515	C-2	C4003	E-4	C7584	B-4	R3909	F-3	R4901	F-5	R7601	E-1
IC7506	E-1	D7511	C-2	C1516	B-6	C4004	E-4	C7585	B-4	R3910	F-3	R4903	F-5	R7602	E-1
Transistor		D7512	A-5	C1518	B-6	C4005	E-4	C7586	B-4	R3911	F-3	R7403	F-8	R7603	E-1
Q4001	E-2	Crystal Osillator		C1519	B-6	C4006	E-4	C7587	B-3	R3912	F-3	R7404	F-8	R7604	A-8
Q4002	F-2	X7501	B-4	C1520	C-2	C4009	E-4	C7588	B-4	R3913	F-3	R7406	D-8	R7611	B-4
Q4003	E-2	X7502	B-4	C1521	C-2	C4010	E-4	C7589	B-4	R3914	F-3	R7407	D-8	R7613	B-4
Q4004	F-3	IC Protector		C1522	C-2	C4011	E-3	C7595	C-4	R3915	F-3	R7418	C-8	R7617	A-5
Q4005	E-2	IP7501	B-2	C1523	B-5	C4013	C-7	C7596	C-4	R3916	F-3	R7419	C-8	R7626	C-2
Q7401	D-8	Coil		C1524	B-5	C4014	C-7	C7597	C-4	R3923	F-5	R7442	B-8	R7629	C-2
Q7503	A-2	L1501	C-1	C1527	C-5	C4016	D-3	C7598	C-4	R3924	F-4	R7443	B-8	R7630	A-2
Q7504	B-2	L3001	E-7	C1528	C-5	C4017	D-4	C7599	C-4	R3925	F-4	R7444	B-8	R7633	C-4
Q7507	A-7	L3002	F-6	C1531	C-5	C4019	D-4	C7600	C-4	R3926	A-7	R7445	B-8	R7636	B-3
Q7508	A-6	L4901	E-5	C1533	C-5	C4022	D-4	C7601	C-4	R3927	A-7	R7446	B-8	R7637	B-3
Q7512	E-1	L7401	C-5	C1534	C-5	C4023	D-4	C7602	C-3	R3928	A-7	R7452	D-8	R7638	B-3
Q7517	A-2	L7502	B-1	C1537	C-5	C4024	D-4	C7604	C-3	R3929	A-7	R7454	C-7	R7644	A-5
Q7520	A-6	L7503	B-2	C1539	D-2	C4025	D-4	C7607	B-3	R4001	F-5	R7505	B-3	R7645	A-6
Transistor-resistor		L7508	C-3	C1540	D-1	C4026	B-6	C7609	C-4	R4002	F-5	R7506	B-2	Transformer	
QR4001	D-2	LB1501	C-1	C1541	C-1	C4027	B-6	C7610	C-4	R4003	F-5	R7507	B-2	T7501	B-2
QR4002	D-2	LB1503	C-1	C1543	D-2	C4028	C-6	C7611	A-8	R4004	F-5	R7508	B-2	Backup Battery	
QR4003	D-2	LB1504	B-1	C3001	A-7	C4029	C-6	C7612	B-3	R4008	E-4	R7509	B-2	B7501	C-2
QR4004	D-2	LB1505	B-1	C3005	D-6	C4036	D-3	C7613	C-3	R4011	F-5	R7510	A-2		
QR7502	C-2	LB3905	F-6	C3006	D-6	C4037	E-3	C7618	C-2	R4012	F-5	R7511	A-2		
QR7507	A-2	LB3906	F-6	C3007	E-6	C4038	E-3	C7620	C-3	R4013	F-5	R7512	A-2		
Test Point		LB3907	F-6	C3008	E-6	C4039	F-3	C7626	C-2	R4014	F-5	R7513	B-2		
CL3001	D-6	LB3908	F-6	C3010	E-7	C4040	F-2	C7633	B-1	R4015	C-7	R7514	B-2		
CL7406	C-6	LB3909	F-6	C3011	E-6	C4041	F-3	C7636	E-2	R4016	C-7	R7516	A-4		
CL7407	C-6	LB3910	F-6	C3012	E-6	C4042	F-2	C7637	E-1	R4017	C-7	R7519	A-7		
CL7501	C-4	LB3915	F-3	C3013	E-6	C4045	E-2	C7639	E-1	R4018	C-7	R7520	A-7		
CL7502	C-4	LB3916	F-3	C3014	E-7	C4046	D-5	C7650	C-3	R4019	D-3	R7521	A-6		
TL7401	D-8	LB3917	F-3	C3015	E-7	C4047	D-5	C7652	C-4	R4020	D-3	R7522	A-6		
TL7501	A-4	LB3918	F-3	C3016	E-6	C4049	D-5	C7653	C-3	R4024	D-4	R7523	A-7		
TL7502	A-2	LB3919	F-3	C3017	E-7	C4050	E-2	C7654	B-3	R4025	D-4	R7530	B-4		
TL7503	B-4	LB3920	F-3	C3018	E-7	C4052	E-2	C7657	A-3	R4026	D-4	R7531	B-4		
TL7504	C-4	LB3924	F-5	C3019	E-7	C4901	E-5	Resistor		R4027	D-4	R7532	B-4		
TL7505	C-2	LB3925	F-4	C3020	E-6	C4902	E-5	R1501	B-2	R4028	D-4	R7533	A-4		
TL7506	B-4	LB3926	F-4	C3021	E-6	C4903	E-4	R1502	B-2	R4029	D-4	R7534	B-3		
TL7507	D-7	LB3927	A-7	C3022	E-5	C4904	F-5	R1503	B-2	R4031	D-5	R7535	B-3		
TL7508	C-3	LB3928	A-7	C3023	E-5	C4906	F-5	R1504	C-2	R4032	D-4	R7536	B-3		
TL7509	C-3	LB3929	A-7	C3024	E-5	C7401	B-6	R1506	B-5	R4037	A-6	R7537	B-3		
TL7510	C-3	LB4903	F-5	C3025	E-5	C7404	E-8	R1507	C-5	R4038	A-6	R7538	B-4		
TL7511	C-3	LB4904	F-5	C3026	E-5	C7405	F-7	R1508	C-5	R4039	E-3	R7539	B-4		
TL7512	C-4	LB4905	F-5	C3027	E-5	C7406	B-6	R1509	C-5	R4042	E-3	R7540	B-4		
TL7513	A-4	LB4906	F-5	C3028	E-6	C7407	B-6	R1510	D-5	R4043	C-6	R7541	B-4		
TL7514	A-4	LB4907	F-2	C3029	E-6	C7416	E-8	R1511	D-5	R4044	C-6	R7542	B-4		
TL7515	B-4	LB4908	F-2	C3030	E-6	C7417	C-8	R1512	D-5	R4045	C-6	R7548	C-4		
TL7516	B-4	LB4909	F-2	C3031	E-6	C7432	C-8	R1515	C-5	R4046	C-6	R7549	C-4		
TW7501	B-1	LB4910	F-3	C3032	E-6	C7433	C-8	R1516	D-2	R4049	E-2	R7550	C-4		
Connector		LB4911	A-6	C3033	E-5	C7436	B-8	R3025	D-6	R4050	D-2	R7551	C-4		
JK3901	F-6	LB4912	A-6	C3034	E-7	C7437	B-8	R3026	D-6	R4051	E-2	R7556	C-4		
JK3902	F-3	LB7402	E-7	C3035	D-6	C7525	B-3	R3027	D-7	R4052	D-2	R7557	C-4		
JK3903	F-4	LB7409	B-6	C3036	E-6	C7526	A-3	R3028	A-7	R4059	E-3	R7561	C-3		
JK3904	A-7	LB7410	B-6	C3037	D-6	C7528	A-3	R3029	E-7	R4060	D-3	R7562	C-3		
P1501	C-2	LB7411	B-6	C3038	D-6	C7550	A-2	R3030	E-7	R4061	E-2	R7563	C-3		

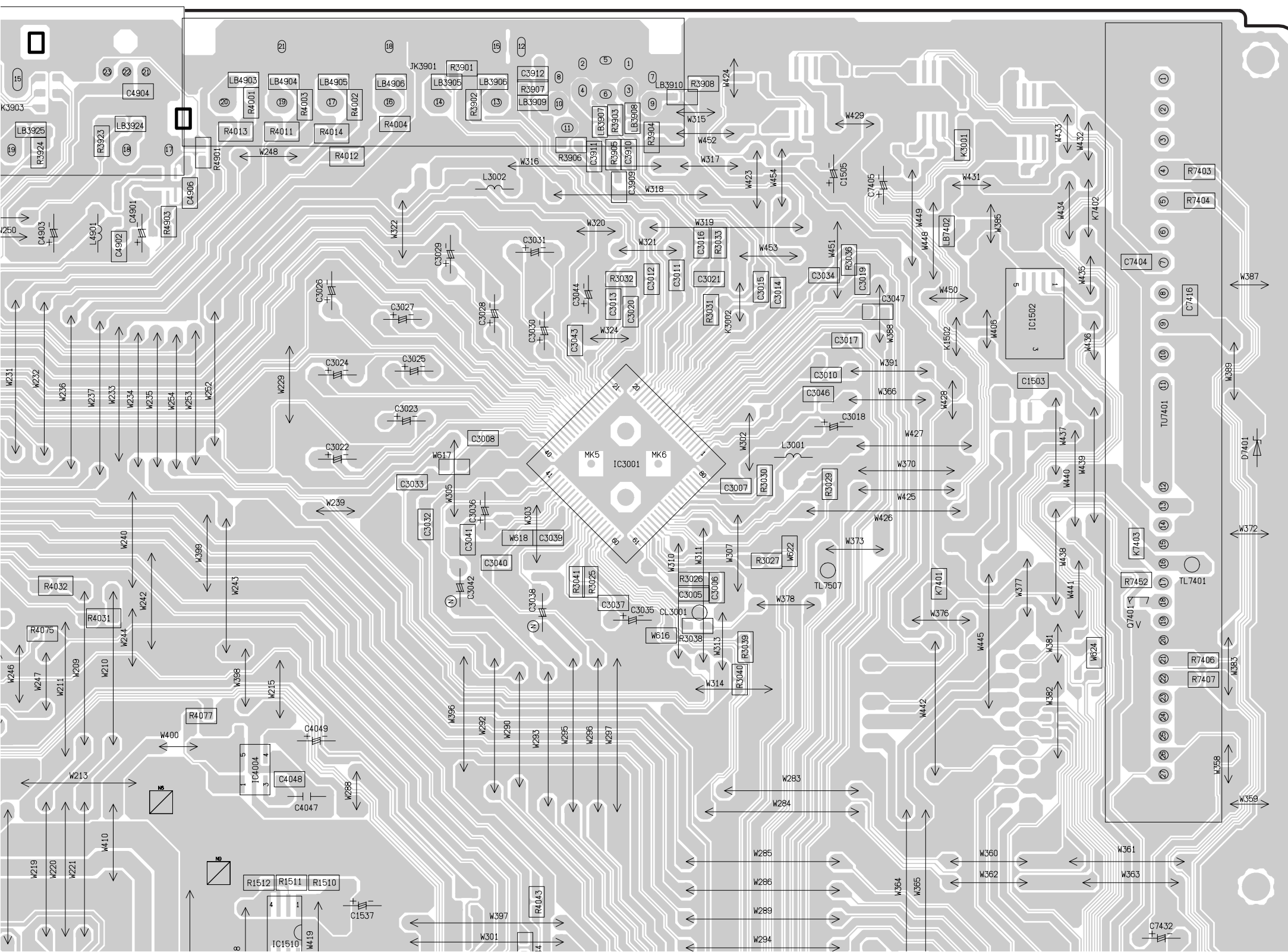




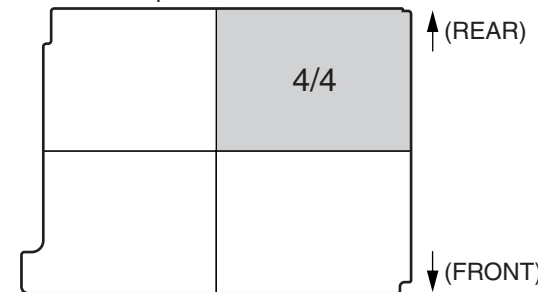


# D

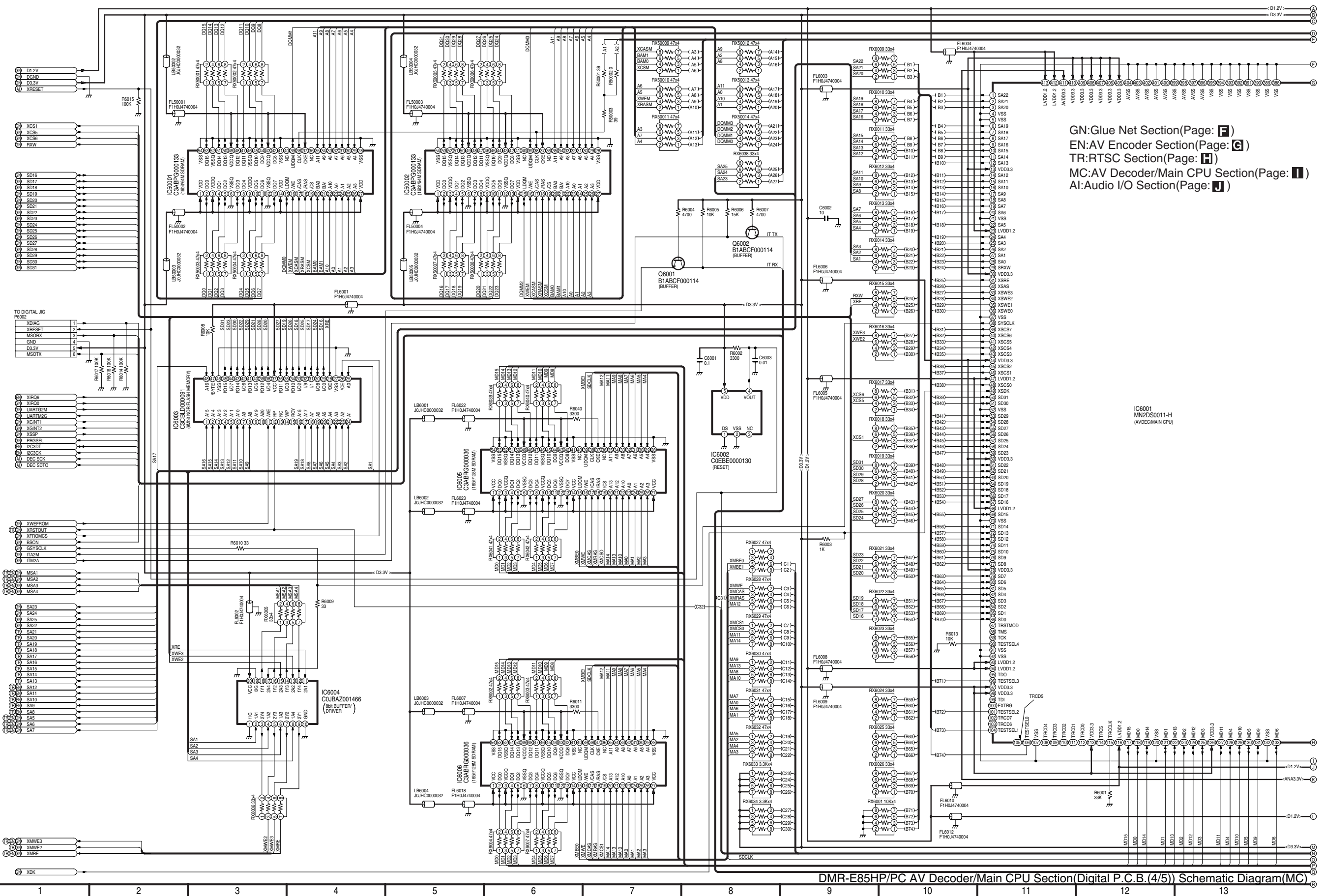




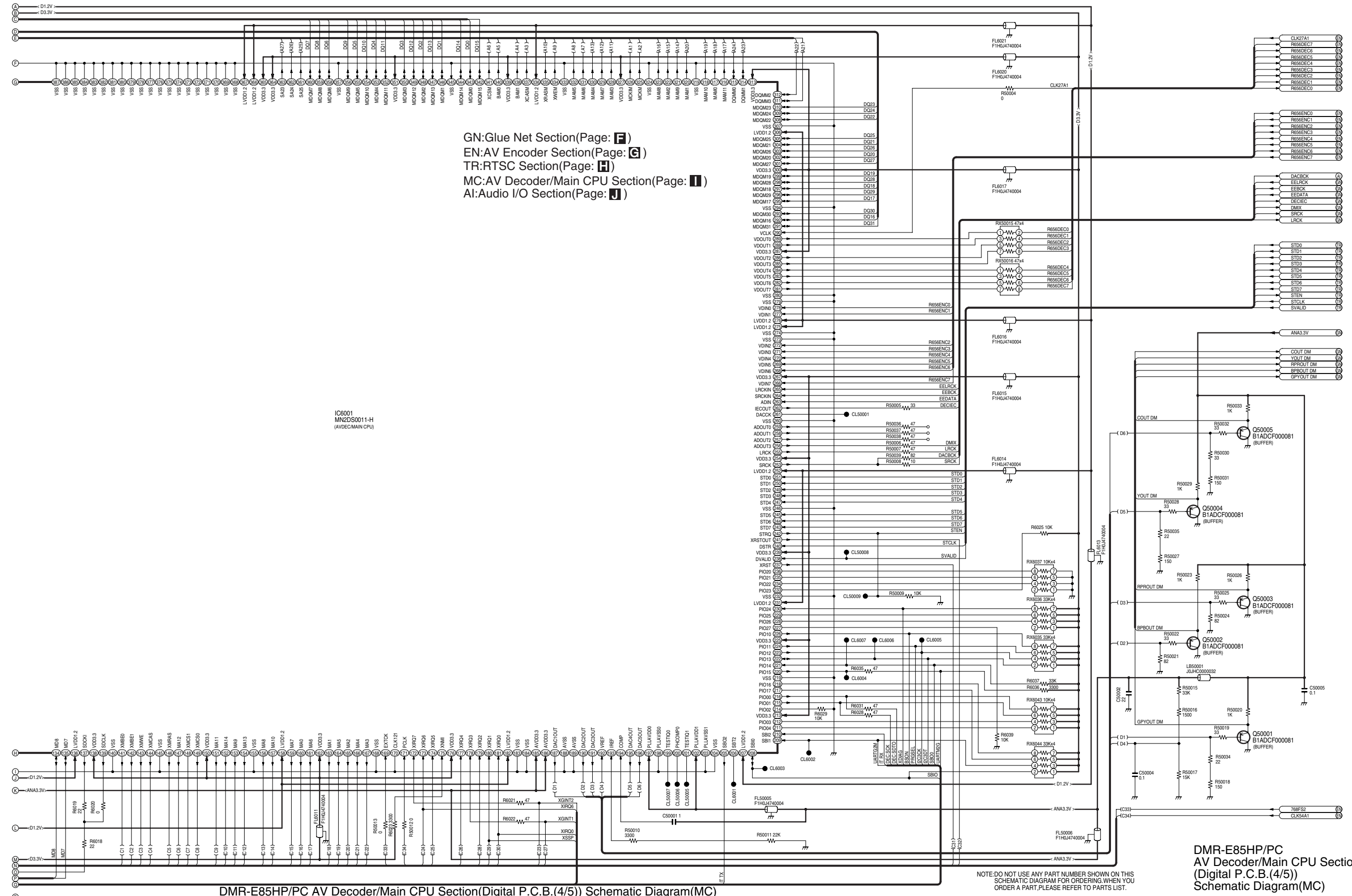
### Location Map



DMR-E85HP/PC  
Main P.C.B. (REP3662F)  
(4/4 Section)

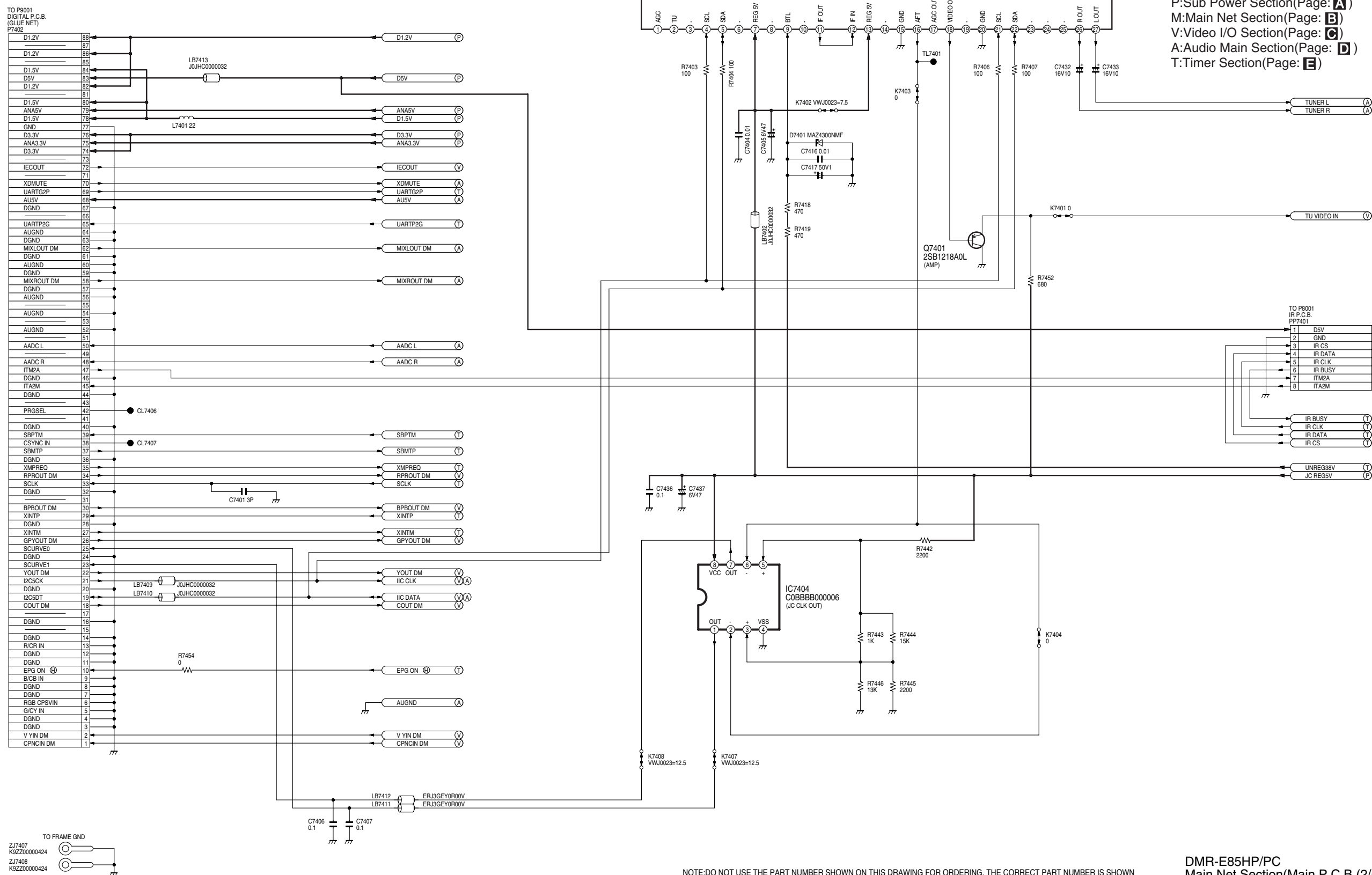






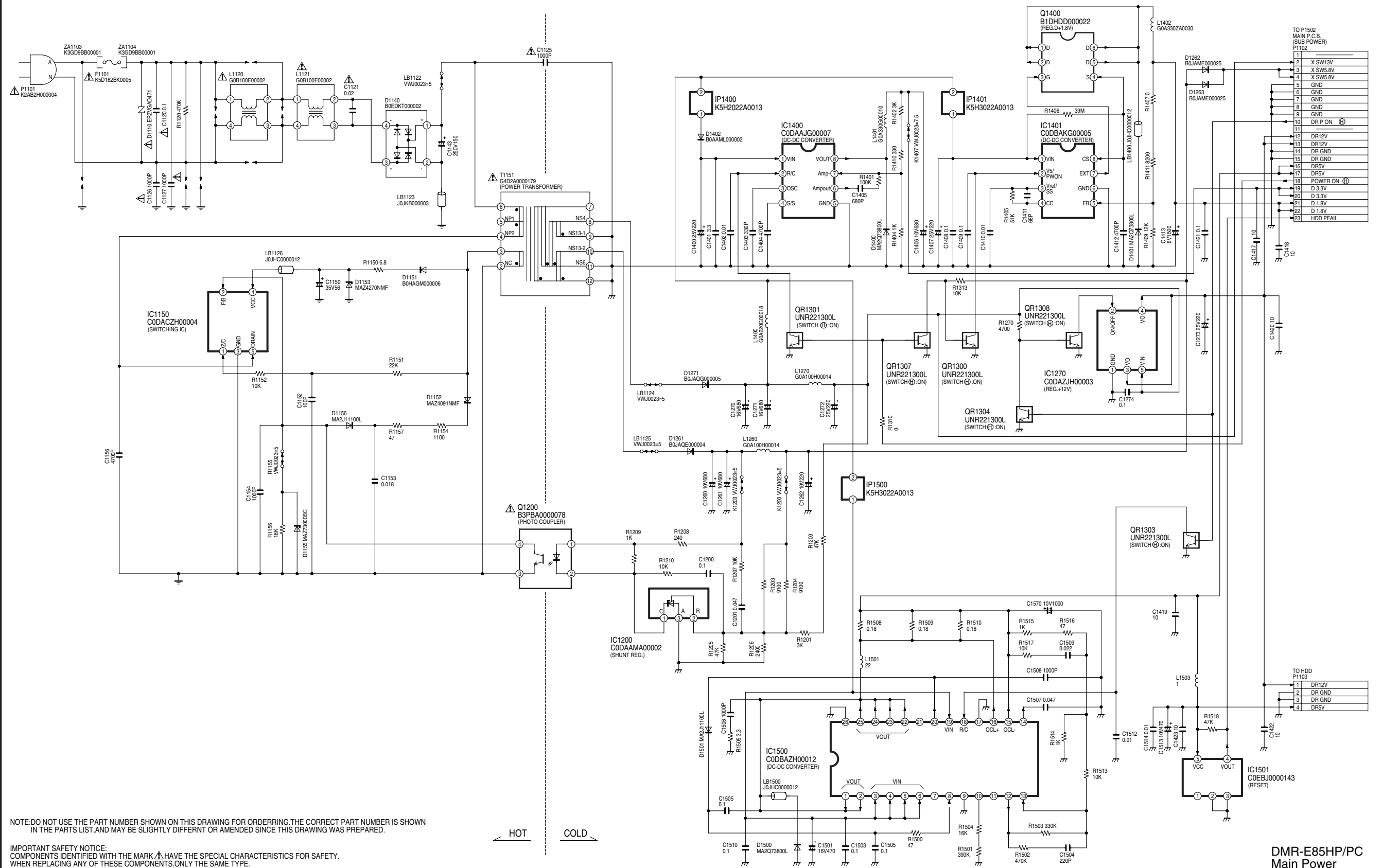
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

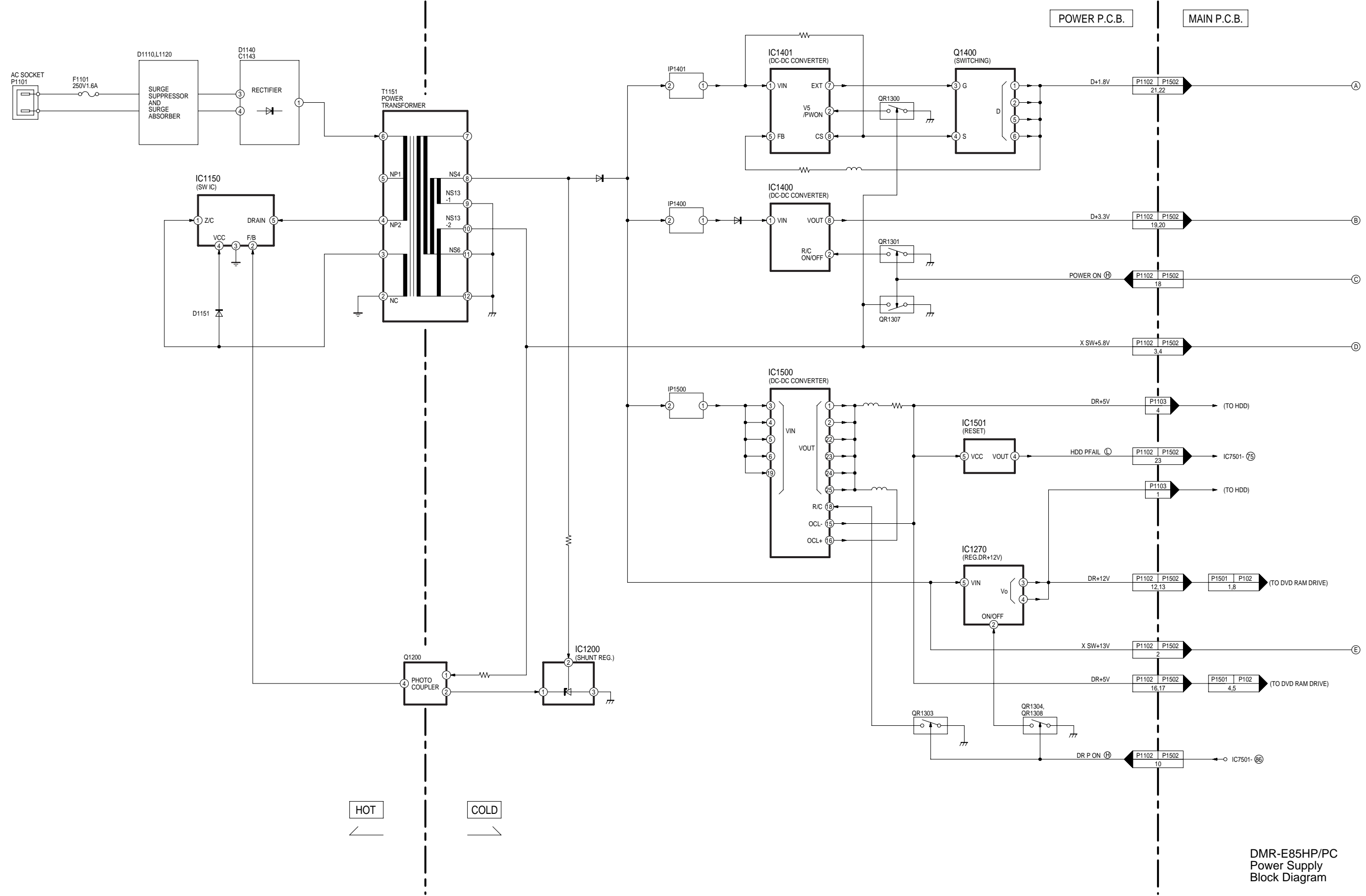
DMR-E85HP/PC  
 AV Decoder/Main CPU Section  
 (Digital P.C.B.(4/5))  
 Schematic Diagram(MC)

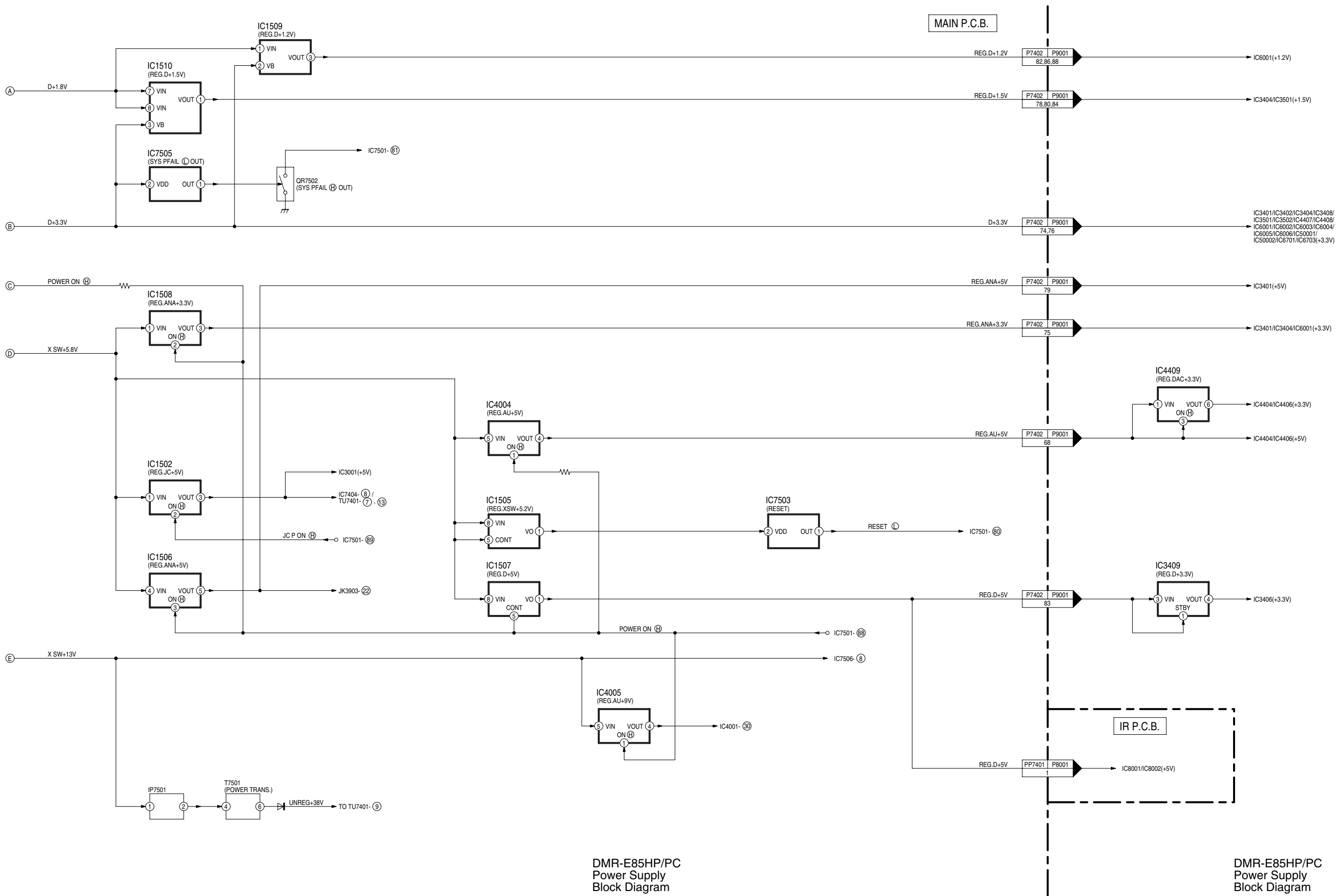


NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Main Net Section(Main P.C.B.(2/5))  
Schematic Diagram(M)







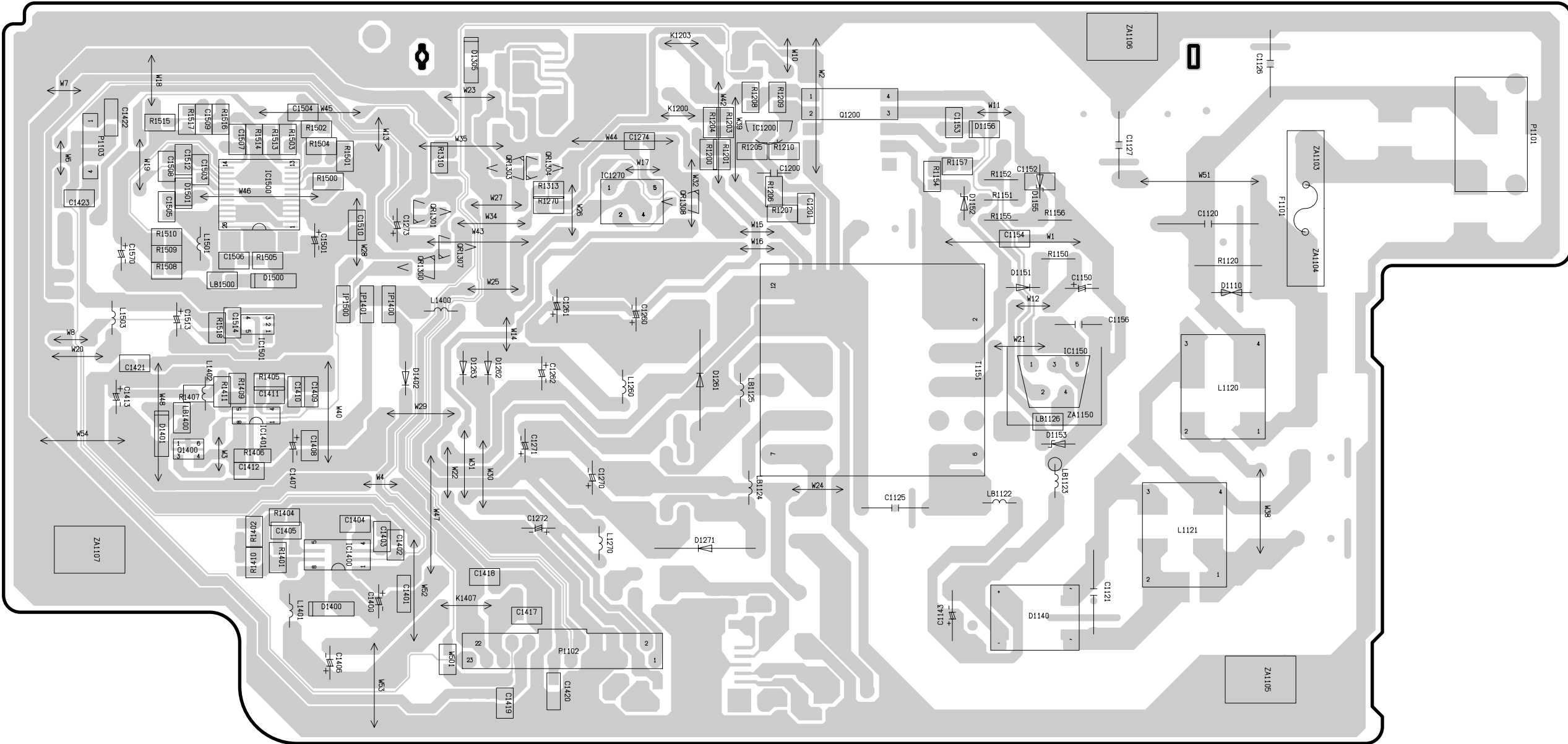
DMR-E85HP/PC  
Power Supply  
Block Diagram

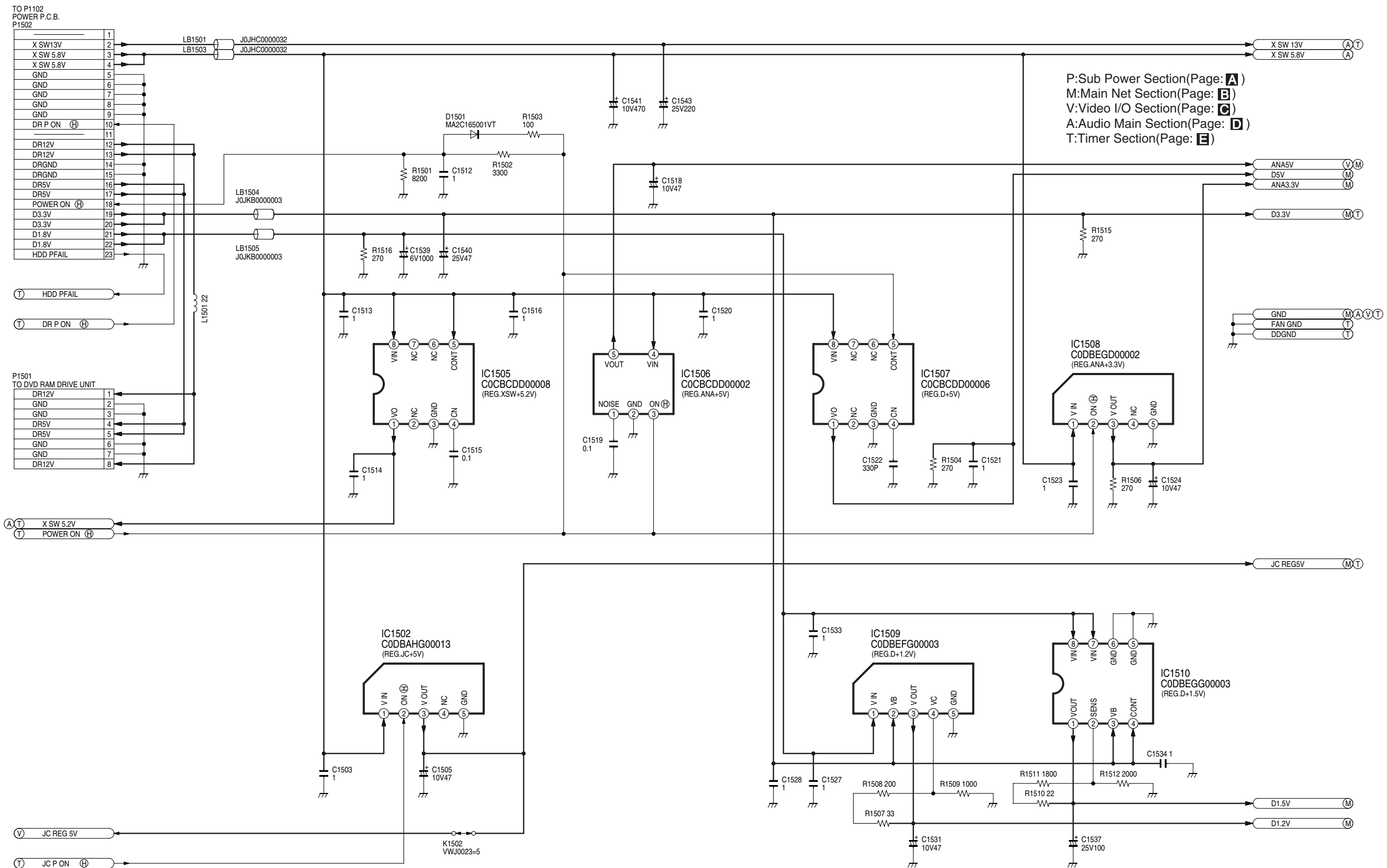
DMR-E85HP/PC  
Power Supply  
Block Diagram

Ref No.	IC1150						IC1200				IC1270											
MODE	1	2	3	4	5		1	2	3		1	2	3	4	5							
REC	2.3	1.8	0	14.6	-205		5.2	2.5	0		0	1.8	12.1	12.1	13.1							
PLAY	2.3	1.8	0	14.6	-234		5.2	2.5	0		0	1.8	12.1	12.1	13.1							
STOP	2.3	1.8	0	14.6	-229		5.2	2.5	0		0	1.8	12.1	12.1	13.1							
Ref No.	IC1400										IC1401											
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8					
REC	12.3	0	1.5	4.2	0	1.3	0.8	5.4		13.1	4.5	1.2	1.3	1.2	0	11.6	13.1					
PLAY	12.3	0	1.5	4.3	0	1.3	0.8	5.0		13.1	4.5	1.2	1.2	1.2	0	11.6	13.1					
STOP	12.3	0	1.5	4.3	0	1.3	0.8	5.3		13.1	4.5	1.2	1.2	1.2	0	11.6	13.1					
Ref No.	IC1500																					
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
REC	6.0	6.0	13.1	13.1	13.1	13.1	8.7	12.1	0	2.6	4.9	1.8	2.4	4.3	5.0	5.1	0	0	13.1	6.7		
PLAY	6.0	6.0	13.1	13.1	13.1	13.1	8.7	12.1	0	2.6	4.9	1.8	2.4	4.3	5.0	5.1	0	0	13.1	6.7		
STOP	6.0	6.0	13.1	13.1	13.1	13.1	8.7	12.1	0	2.6	4.9	1.8	2.4	4.3	5.0	5.1	0	0	13.1	6.7		
Ref No.	IC1500																					
MODE	21	22	23	24	25	26																
REC	-	6.0	6.0	6.0	6.0	0																
PLAY	-	6.0	6.0	6.0	6.0	0																
STOP	-	6.0	6.0	6.0	6.0	0																
Ref No.	IC1501																					
MODE	1	2	3	4	5																	
REC	-	0	0	4.9	5.0																	
PLAY	-	0	0	4.9	5.0																	
STOP	-	0	0	4.9	5.0																	
Ref No.	Q1200					Q1400							Q4004				Q4005					
MODE	1	2	3	4		1	2	3	4	5	6		E	C	B		E	C	B			
REC	6.2	5.2	0	1.8		0.8	0.8	11.5	13.1	0.8	0.8		0	0	-0.1		0	0	-0.1			
PLAY	6.2	5.2	0	1.8		0.8	0.8	11.5	13.1	0.8	0.8		0	0	-0.1		0	0	-0.1			
STOP	6.2	5.2	0	1.8		0.8	0.8	11.5	13.1	0.8	0.8		0	0	-0.1		0	0	-0.1			
Ref No.	Q7517				Q7520																	
MODE	E	C	B		E	C	B															
REC	-19.8	-19.8	-19.1		0	2.7	0															
PLAY	-19.8	-19.8	-19.1		0	2.7	0															
STOP	-19.8	-19.8	-19.1		0	2.7	0															
Ref No.	QR1300				QR1301				QR1303				QR1304				QR1307					
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B			
REC	0	4.5	0		0	0	3.3		0	0	5.0		0	0	5.0		0	0	3.3			
PLAY	0	4.5	0		0	0	3.3		0	0	5.0		0	0	5.0		0	0	3.3			
STOP	0	4.5	0		0	0	3.3		0	0	5.0		0	0	5.0		0	0	3.3			
Ref No.	QR1308				QR7507																	
MODE	E	C	B		E	C	B															
REC	0	1.8	0		4.9	4.9	0															
PLAY	0	1.8	0		4.9	4.8	0															
STOP	0	1.8	0		4.9	4.8	0															

POWER P.C.B.

Integrated Circuit		P1103		D-1		IP1500		C-3		LB1500		C-2		C1273		D-3		C1422		D-1		R1155		D-6		R1407		C-2	
IC1150	C-6	Diode		T1151		Transformer		Capacitor		C1274		D-4		C1423		D-1		R1156		D-6		R1409		C-2		R1410		C-2	
IC1200	D-5	D1110		C-7		F1101		D-8		C1120		C-7		C1400		B-3		C1501		D-2		R1157		D-5		R1411		C-2	
IC1270	D-4	D1140		A-6		Coil				C1121		A-7		C1401		B-3		C1503		D-2		R1200		D-5		R1500		D-3	
IC1400	B-3	D1151		C-6		L1120		C-7		C1125		B-6		C1402		B-3		C1504		D-2		R1201		D-5		R1501		D-2	
IC1401	C-2	D1152		D-6		L1121		B-7		C1126		E-8		C1403		B-3		C1505		D-2		R1203		D-5		R1502		D-3	
IC1500	D-2	D1153		B-6		L1260		C-4		C1127		D-7		C1404		B-2		C1506		C-2		R1204		D-5		R1503		D-2	
IC1501	C-2	D1155		D-6		L1270		C-3		C1143		A-6		C1405		A-3		C1507		D-2		R1205		D-5		R1504		D-3	
Transistor		D1156		C-5		L1400		B-4		C1150		C-7		C1406		B-2		C1508		D-2		R1206		D-5		R1505		C-2	
Q1200	D-5	D1261		C-3		L1401		C-2		C1152		D-6		C1407		C-2		C1509		D-2		R1207		D-5		R1506		C-2	
Q1400	B-2	D1262		C-3		L1501		C-1		C1153		D-6		C1408		C-2		C1510		D-3		R1208		D-5		R1508		C-2	
Transistor-resistor		D1263		B-5		L1503		C-6		C1154		D-6		C1409		C-2		C1512		D-2		R1209		D-5		R1509		C-2	
QR1300	C-3	D1271		B-3		L1402		C-5		C1156		C-7		C1410		C-2		C1513		C-2		R1210		D-5		R1510		D-2	
QR1301	D-3	D1400		B-2		L1501		C-6		C1200		D-5		C1411		C-2		C1514		C-2		R1210		D-4		R1513		D-2	
QR1303	D-4	D1401		C-3		L1503		C-1		C1201		D-5		C1412		B-2		C1515		C-1		R1210		D-3		R1514		D-2	
QR1304	D-4	D1402		C-3		LB1122		B-6		C1260		C-4		C1413		C-1		R1120		C-7		R1310		D-4		R1515		D-2	
QR1307	C-3	D1500		C-2		LB1123		B-5		C1261		C-4		C1417		B-4		R1150		C-6		R1401		B-2		R1516		D-2	
QR1308	D-4	D1501		D-2		LB1124		C-5		C1262		C-4		C1418		A-4		R1151		D-6		R1402		B-2		R1517		D-2	
Connector		IC Protector		LB1125		C-6		C-2		C1270		B-4		C1419		C-2		R1152		D-6		R1404		C-2		R1518		C-2	
P1101	D-9	IP1400		C-3		LB1126		C-6		C1271		B-4		C1420		C-2		R1154		D-6		R1405		B-2					
P1102	A-4	IP1401		C-3		LB1400				C1272				C1421															

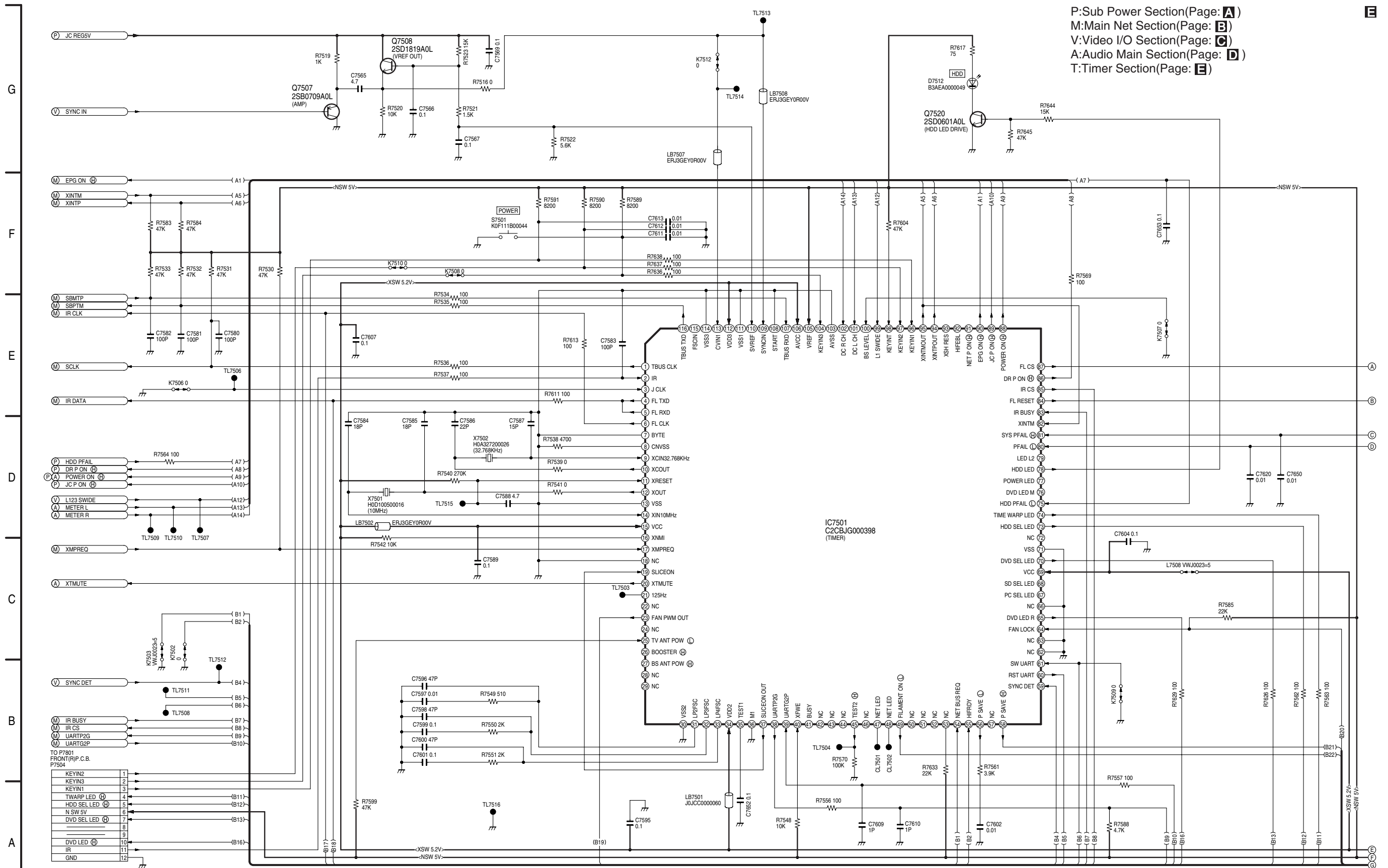




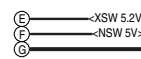
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Sub Power Section (Main P.C.B(1/5))  
Schematic Diagram (P)



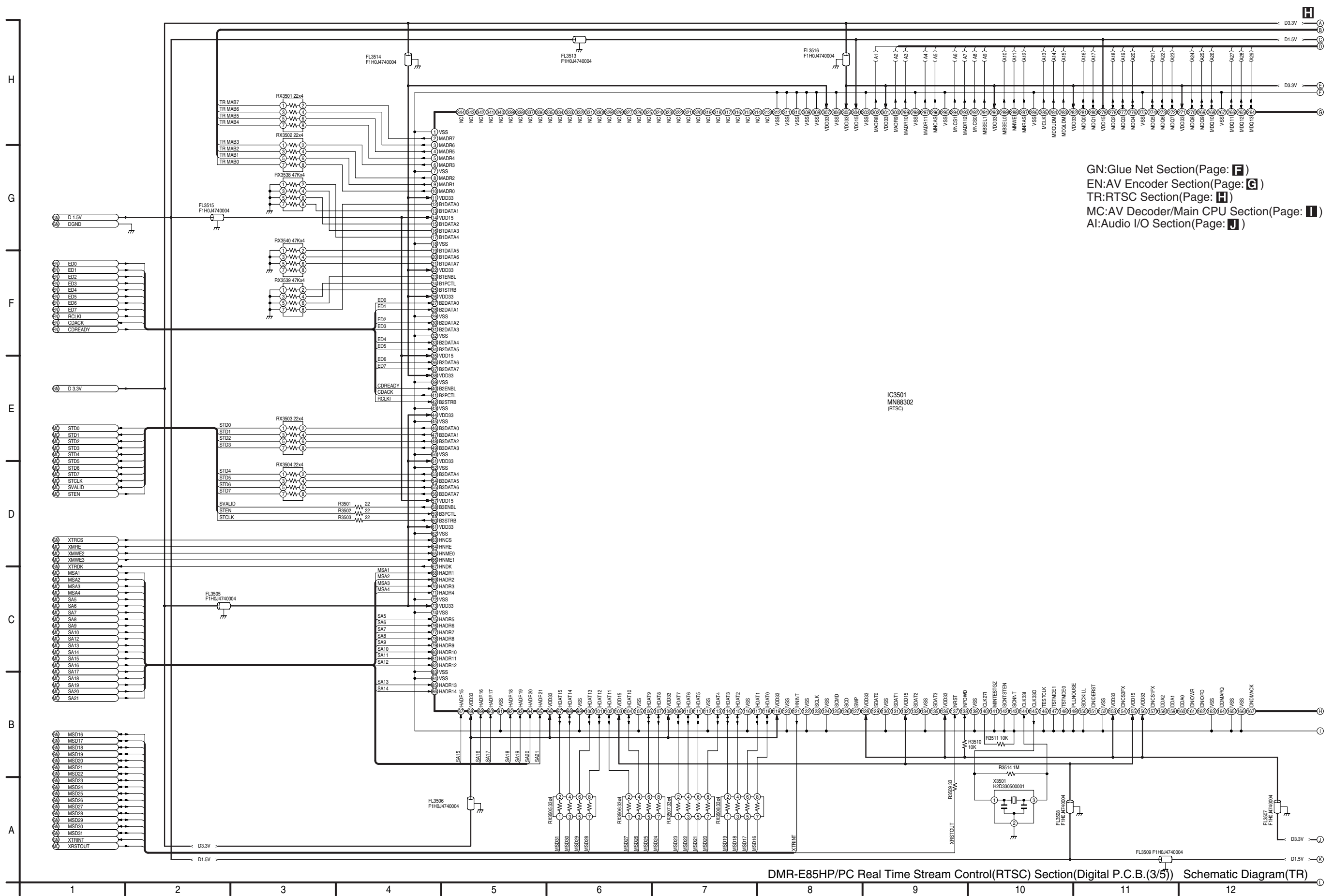


DMR-E85HP/PC  
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)

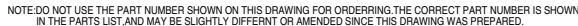


NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HP/PC  
Timer Section(Main P.C.B.(5/5))  
Schematic Diagram(T)



DMR-E85HP/PC Real Time Stream Control(RTSC) Section(Digital P.C.B.(3/5)) Schematic Diagram(TR)



F

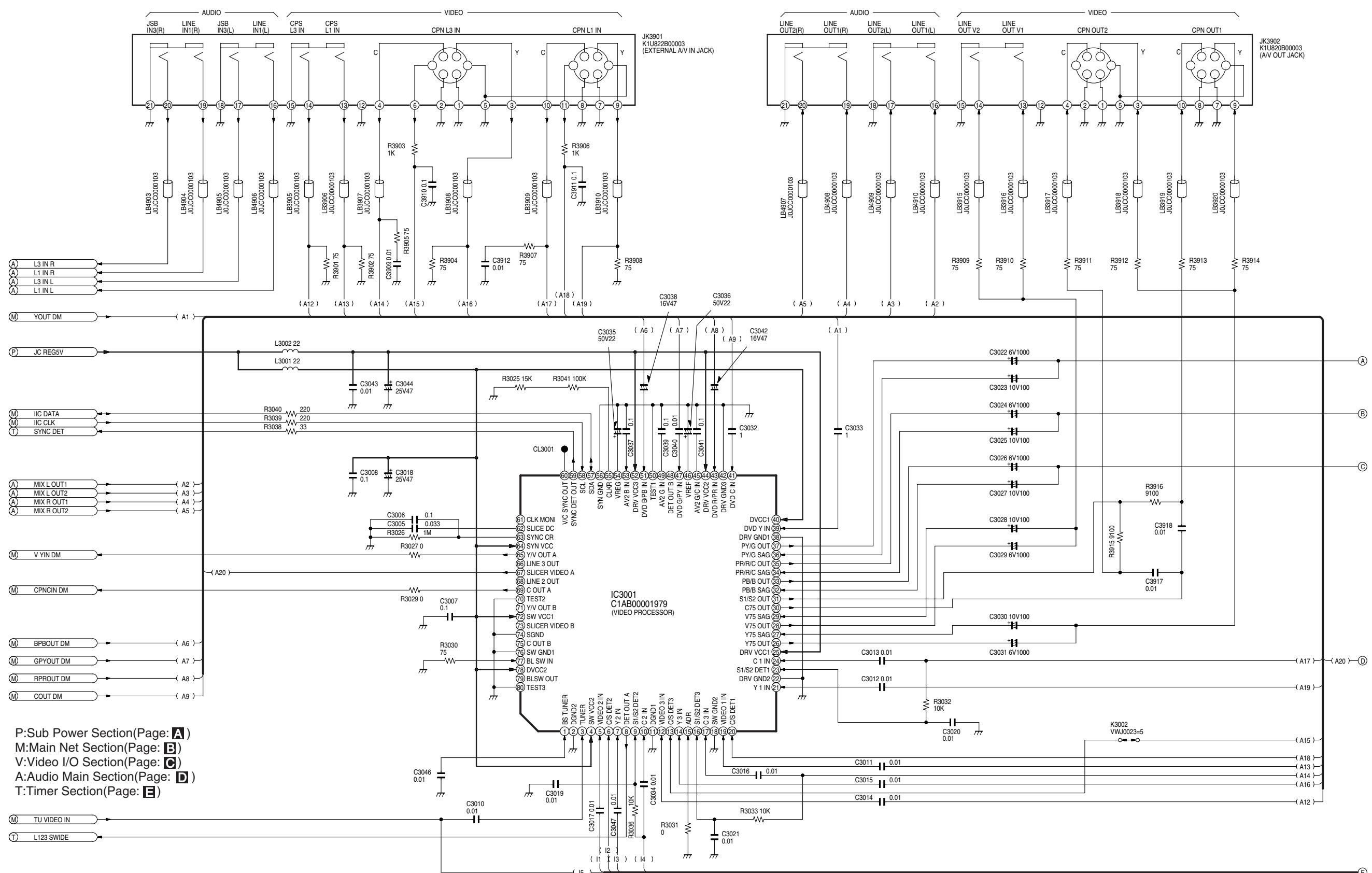
E

D

C

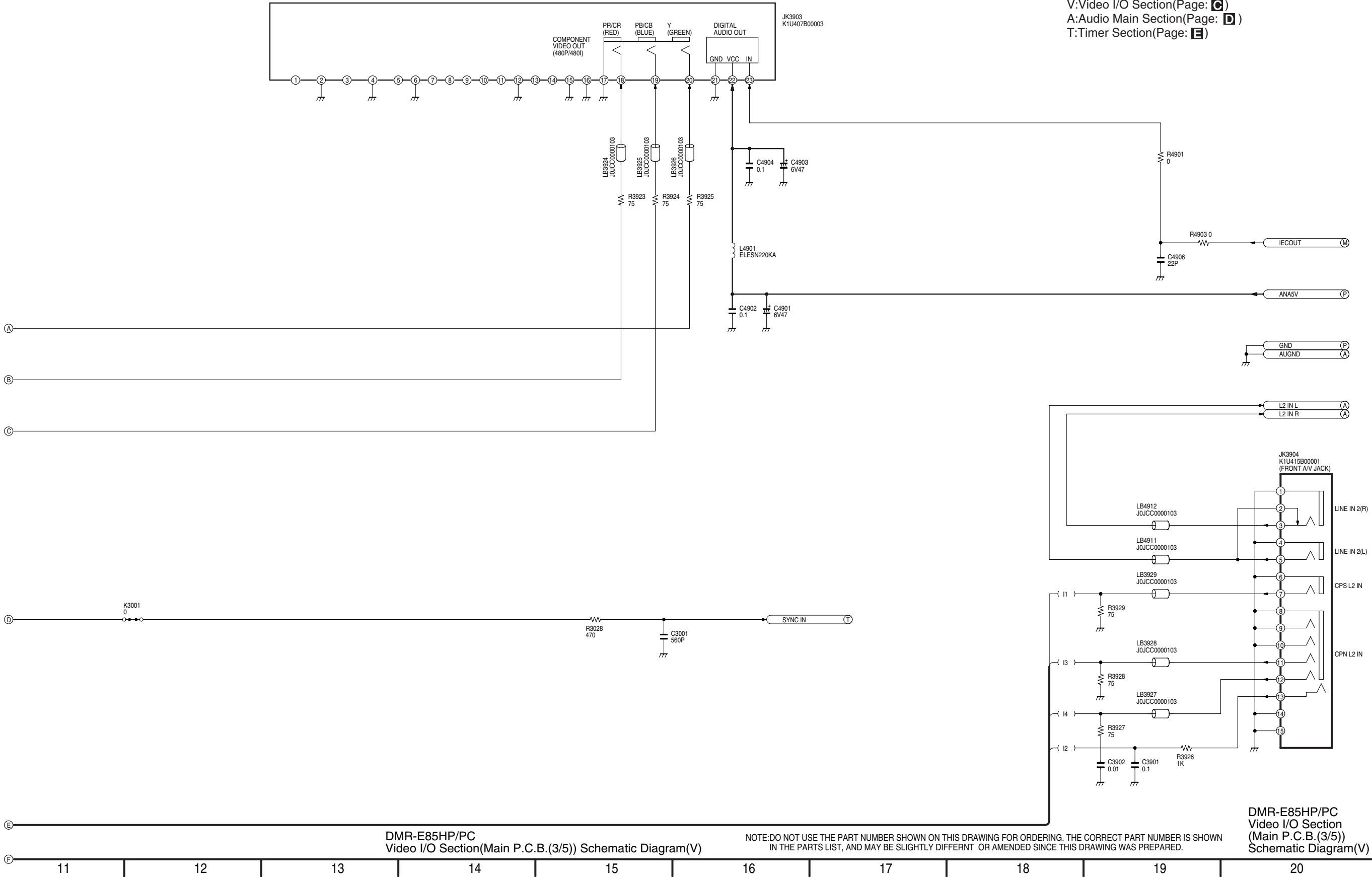
B

A



P:Sub Power Section(Page: **A**)  
M:Main Net Section(Page: **B**)  
V:Video I/O Section(Page: **C**)  
A:Audio Main Section(Page: **D**)  
T:Timer Section(Page: **E**)

P:Sub Power Section(Page: **A**)  
M:Main Net Section(Page: **B**)  
V:Video I/O Section(Page: **C**)  
A:Audio Main Section(Page: **D**)  
T:Timer Section(Page: **E**)



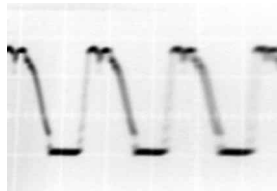
Ref No.	IC1502						IC1505									IC1506				
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8		1	2	3	4	5
REC	6.0	4.9	5.0	-	0		5.2	-	0	3.3	6.0	-	-	6.0		1.2	0	4.9	6.0	5.0
PLAY	6.0	4.9	5.0	-	0		5.2	-	0	3.3	6.0	-	-	6.0		1.2	0	4.9	6.0	5.0
STOP	6.0	4.9	5.0	-	0		5.2	-	0	3.3	6.0	-	-	6.0		1.2	0	4.9	6.0	5.0
Ref No.	IC1507									IC1508						IC1509				
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5		1	2	3	4	5
REC	5.0	-	0	3.1	4.9	-	-	6.0		6.0	4.9	3.3	-	0		1.8	3.3	1.2	1.0	0
PLAY	5.0	-	0	3.1	4.9	-	-	6.0		6.0	4.9	3.3	-	0		1.8	3.3	1.2	1.0	0
STOP	5.0	-	0	3.1	4.9	-	-	6.0		6.0	4.9	3.3	-	0		1.8	3.3	1.2	1.0	0
Ref No.	IC1510																			
MODE	1	2	3	4	5	6	7	8												
REC	1.5	0.8	3.3	3.3	0	0	1.8	1.8												
PLAY	1.5	0.8	3.3	3.3	0	0	1.8	1.8												
STOP	1.5	0.8	3.3	3.3	0	0	1.8	1.8												
Ref No.	IC3001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	1.3	0	2.1	4.9	1.3	4.8	1.4	4.6	0.1	2.6	0	1.3	4.8	1.3	0	0.1	2.6	0	1.7	4.8
PLAY	1.4	0	2.1	4.9	1.4	4.8	1.4	4.6	0.1	2.6	0	1.4	4.8	1.4	0	0.1	2.6	0	1.8	4.8
STOP	1.3	0	2.1	4.9	1.3	4.8	1.3	4.6	0.1	2.6	0	1.3	4.8	1.3	0	0.1	2.6	0	1.8	4.8
Ref No.	IC3001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	1.3	0	0.1	2.6	4.9	1.6	1.6	1.8	1.8	2.1	0	2.1	2.1	2.1	2.1	1.6	1.5	0	1.8	4.9
PLAY	1.4	0	0.1	2.6	4.9	1.6	1.6	1.8	1.8	2.1	0	2.1	2.1	2.1	2.1	1.6	1.5	0	1.8	4.9
STOP	1.3	0	0.1	2.6	4.9	1.6	1.6	1.8	1.8	2.1	0	2.1	2.1	2.1	2.1	1.6	1.5	0	1.8	4.9

Ref No.	IC3001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	2.7	0	2.7	4.9	2.7	2.7	1.7	4.6	2.7	0	2.7	4.9	2.7	2.9	1.0	0	4.9	4.9	4.9	0.1
PLAY	2.7	0	2.7	4.9	2.7	2.7	1.8	4.6	2.7	0	2.7	4.9	2.7	2.9	1.0	0	4.9	4.9	4.9	0.1
STOP	2.7	0	2.7	4.9	2.7	2.7	1.7	4.6	2.7	0	2.7	4.9	2.7	3.0	1.0	0	4.9	4.9	4.9	0.1
Ref No.	IC3001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	0.8	0.8	4.9	1.2	0	1.6	0	2.0	0	-	4.9	-	0	-	0	0	4.9	0	0
PLAY	0	1.6	0.8	4.9	1.6	0	1.6	0	2.0	0	-	4.9	-	0	-	0	0	4.9	0	0
STOP	0	0.8	0.8	4.9	1.2	0	1.6	0	2.0	0	-	4.9	-	0	-	0	0	4.9	0	0
Ref No.	IC4001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	-	4.4	4.4	-	-	4.4	4.4	3.4	4.4	4.4	4.4	4.4	4.4	4.4	0	4.4	0	4.4	0	4.9
PLAY	-	4.4	4.4	-	-	4.4	4.4	3.4	4.4	4.4	4.4	4.4	4.4	4.4	0	4.4	0	4.4	0	4.9
STOP	-	4.4	4.4	-	-	4.5	4.5	3.4	4.4	4.4	4.4	4.4	4.4	4.4	0	4.5	0	4.4	0	4.9
Ref No.	IC4001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
REC	4.9	0	4.4	4.4	4.4	4.4	4.4	4.4	4.4	8.9	4.4	4.4								
PLAY	4.9	0	4.4	4.4	4.4	4.4	4.4	4.4	4.4	8.9	4.4	4.4								
STOP	4.9	0	4.5	4.4	4.4	4.4	4.4	4.4	4.5	8.9	4.4	4.4								
Ref No.	IC4004					IC4005					IC7404									
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	6	7	8
REC	4.9	0	1.2	4.9	6.0		4.9	0	1.2	8.9	13.1		0	2.5	1.9	0	2.8	2.5	3.3	5.0
PLAY	4.9	0	1.2	4.9	6.0		4.9	0	1.2	8.9	13.4		0	2.5	1.9	0	2.8	2.5	3.3	5.0
STOP	4.9	0	1.2	4.9	6.0		4.9	0	1.2	8.9	13.4		0	2.5	1.9	0	2.8	2.5	3.3	5.0
Ref No.	IC7501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	4.9	4.9	0	4.1	3.9	4.4	0	0	0.4	0.5	4.8	1.6	0	2.1	4.9	4.9	5.0	0	0.3	4.9
PLAY	4.9	4.9	0	3.9	3.9	4.4	0	0	0.4	0.5	4.8	1.6	0	2.1	4.9	4.9	5.0	0	0.3	4.9
STOP	5.0	4.9	0	3.9	3.9	4.4	0	0	0.4	0.6	4.8	1.6	0	2.1	5.0	5.0	5.0	0	0.3	4.9
Ref No.	IC7501																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	0	1.8	0	0	0	5.0	0	0	0	1.8	1.7	0	4.9	2.5	0	0.3	4.9	5.0	5.0
PLAY	0	0	1.8	0	0	0	5.0	0	0	0	1.8	1.7	0	4.9	2.5	0	0.3	4.9	5.0	5.0
STOP	0	0	1.8	0	0	0	5.0	0	0	0	1.8	1.7	0	5.0	2.5	0	0.3	5.0	5.0	5.0
Ref No.	IC7501																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0	0	0	0	0	0	0	0	0	0	0	0	5.0	0	0	4.9	0	0	4.9	4.9
PLAY	0	0	0	0	0	0	0	0	0	0	0	0	5.0	0	0	4.9	0	0	4.9	4.9
STOP	0	0	0	0	0	0	0	0	0	0	0	0	5.0	0	0	4.9	0	0	4.9	5.0
Ref No.	IC7501																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	0	0	2.5	5.0	0	0	0	4.9	5.0	0	0	0	0	4.8	5.0	0	0	4.9	4.9
PLAY	0	0	0	2.5	4.9	0	0	0	5.0	4.9	0	0	0	0	4.8	5.0	0	0	4.9	4.9
STOP	0	0	0	2.5	5.0	0	0	0	5.0	4.9	0	0	0	0	4.8	5.0	0	0	5.0	5.0
Ref No.	IC7501																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
REC	0	5.0	5.0	4.9	5.0	4.9	3.0	4.9	4.9	3.3	0	0	0	4.9	5.0	5.0	5.0	4.9	4.6	0
PLAY	0	5.0	5.0	4.9	5.0	4.9	3.0	4.9	4.9	3.3	0	0	0	4.9	5.0	5.0	5.0	4.9	4.6	0
STOP	0	5.0	5.0	5.0	5.0	4.9	3.0	4.9	4.9	3.3	0	0	0	5.0	5.0	5.0	5.0	5.0	4.6	0
Ref No.	IC7501																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116				
REC	0	0	0	5.0	5.0	4.9	5.0	0	1.7	1.3	0	4.9	1.7	0	0	4.9				
PLAY	0	0	0	5.0	5.0	4.9	5.0	0	1.7	1.3	0	4.9	1.7	0	0	4.9				
STOP	0	0	0	5.0	5.0	5.0	5.0	0	1.8	1.3	0	5.0	1.8	0	0	5.0				
Ref No.	IC7502																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	4.9	3.0	4.4	3.9	0	2.2	2.2	5.0	-28.0	-28.0	-28.0	-28.0	-28.0	-24.4	-24.4	-20.8	-28.0	5.0	-28.0	-28.0
PLAY	4.9	3.0	4.4	3.9	0	2.2	2.2	5.0	-28.0	-28.0	-28.0	-28.0	-28.0	-24.4	-21.4	-20.8	-28.0	5.0	-28.0	-28.0
STOP	5.0	3.0	4.4	3.9	0	2.2	2.2	5.0	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-24.4	-20.8	-28.0	5.0	-24.4	-28.0
Ref No.	IC7502																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	-28.0	-28.0	-28.0	-28.0	-24.4	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-17.2	-17.2	-20.8	-20.8	-20.8	-20.8	-24.4	-24.4
PLAY	-24.4	-28.0	-28.0	-24.4	-24.4	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-17.2	-17.2	-24.4	-20.8	-24.4	-24.4	-20.8	-20.8
STOP	-28.0	-28.0	-28.0	-24.4	-20.7	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-28.0	-20.8	-20.8	-24.4	-20.8	-28.0	-20.8	-24.4	-17.1
Ref No.	IC7502																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	-13.5	-20.6	-28.0	-28.0	-28.0	-28.0	-20.6	-24.3	-20.8	-20.8	-17.1	-28.0	-28.0	-28.0	-28.0	-24.4	-24.4	-24.4	-24.4	-24.4
PLAY	-17.1	-20.6	-28.0	-28.0	-28.0	-24.4	-20.6	-24.4	-17.2	-13.4	-16.8	-28.0	-28.0	-28.0	-28.0	-24.4	-23.9	-23.7	-23.4	-23.3
STOP	-20.7	-17.1	-28.0	-28.0	-28.0	-28.0	-20.6	-24.4	-20.8	-17.2	-17.1	-28.0	-28.0	-28.0	-28.0	-24.4	-24.4	-24.4	-24.4	-24.4
Ref No.	IC7502																			
MODE	61	62	63	64																
REC	-24.4	-24.4	-24.4	-28.4																
PLAY	-24.4	-24.4	-24.4	-28.4																
STOP	-24.4	-24.4	-24.4	-28.4																
Ref No.	IC7503					IC7505					IC7506									
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	6	7	8
REC	4.9	5.2	0	-	-		2.2	3.3	0	-	-		5.8	1.8	1.8	0	1.8	1.8	1.8	13.1
PLAY	4.9	5.2	0	-	-		2.2	3.3	0	-	-		5.8	1.8	1.8	0	1.8	1.8	1.8	13.1
STOP	5.0	5.2	0	-	-		2.2	3.3	0	-	-		5.8	1.8	1.8	0	1.8	1.8	1.8	13.1



[illegible]

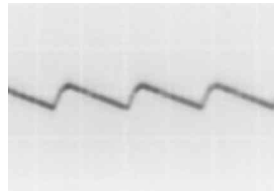
[illegible]



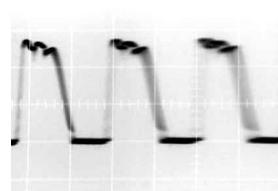
T1151-3 STOP  
30Vp-p (5  $\mu$  sec.div)



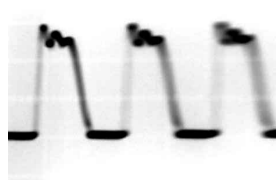
T1151-4 STOP  
330Vp-p (5  $\mu$  sec.div)



T1151-6 STOP  
20Vp-p (5m sec.div)



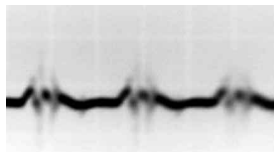
T1151-8 STOP  
30Vp-p (5  $\mu$  sec.div)



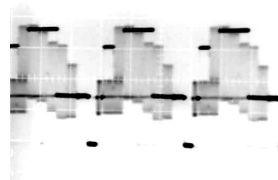
T1151-10 STOP  
15Vp-p (5  $\mu$  sec.div)



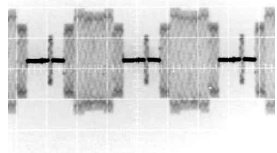
IC1150-1 STOP  
8.0Vp-p (5  $\mu$  sec.div)



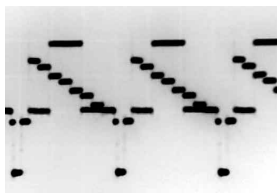
IC1150-2 STOP  
0.5Vp-p (5  $\mu$  sec.div)



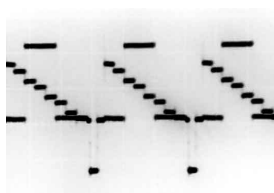
P7402-2 REC/PLAY  
0.8Vp-p (20  $\mu$  sec.div)



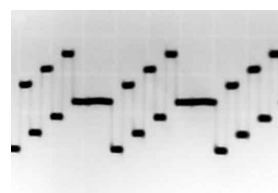
P7402-18 REC/PLAY  
0.7Vp-p (20  $\mu$  sec.div)



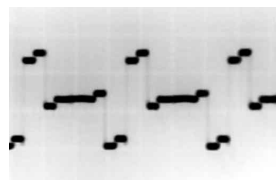
P7402-22 REC/PLAY  
0.8Vp-p (20  $\mu$  sec.div)



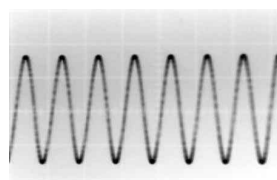
P7402-26 REC/PLAY  
0.8Vp-p (20  $\mu$  sec.div)



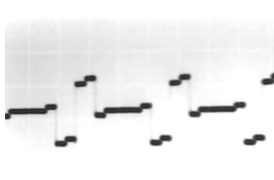
P7402-30 REC/PLAY  
0.6Vp-p (20  $\mu$  sec.div)



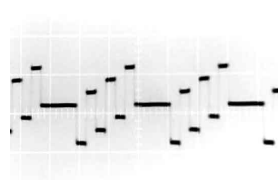
P7402-34 REC/PLAY  
0.6Vp-p (20  $\mu$  sec.div)



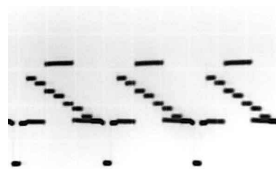
P7402-48,50 REC/PLAY  
0.8Vp-p (1m sec.div)



JK3903-18 REC/PLAY  
1.2Vp-p (20  $\mu$  sec.div)



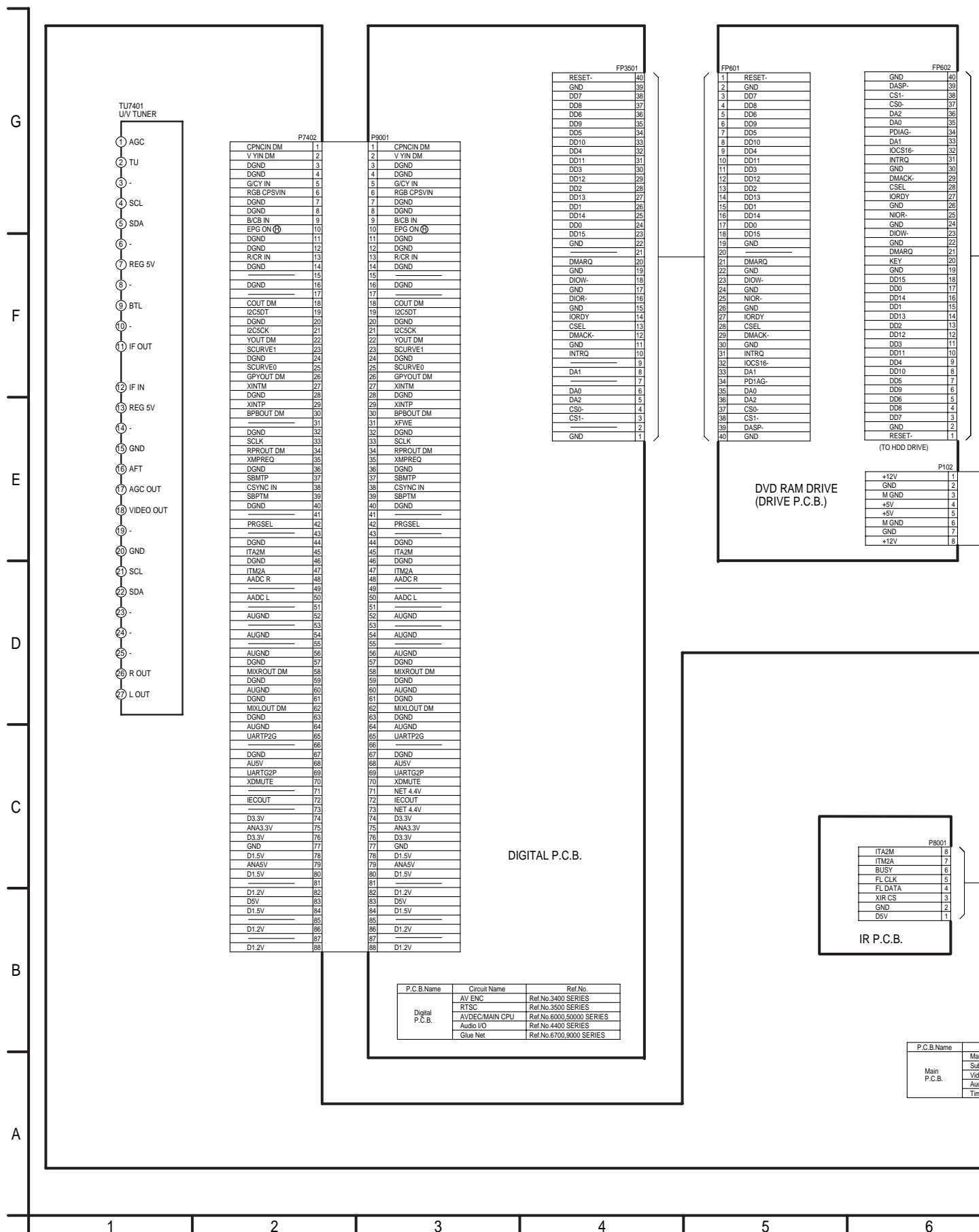
JK3903-19 REC/PLAY  
1.2Vp-p (20  $\mu$  sec.div)

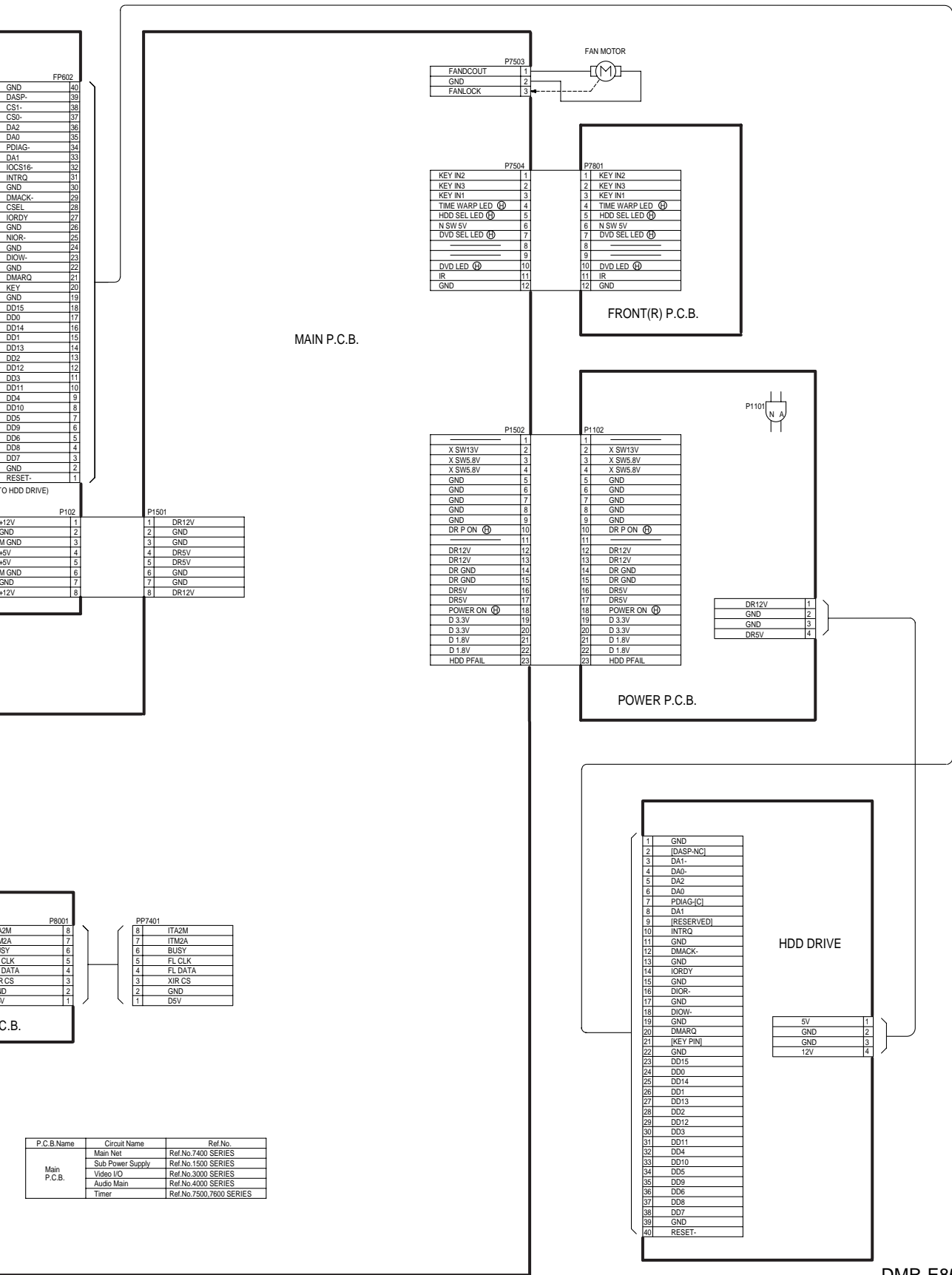


JK3903-20 REC/PLAY  
1.5Vp-p (20  $\mu$  sec.div)

# 19 Schematic Diagram

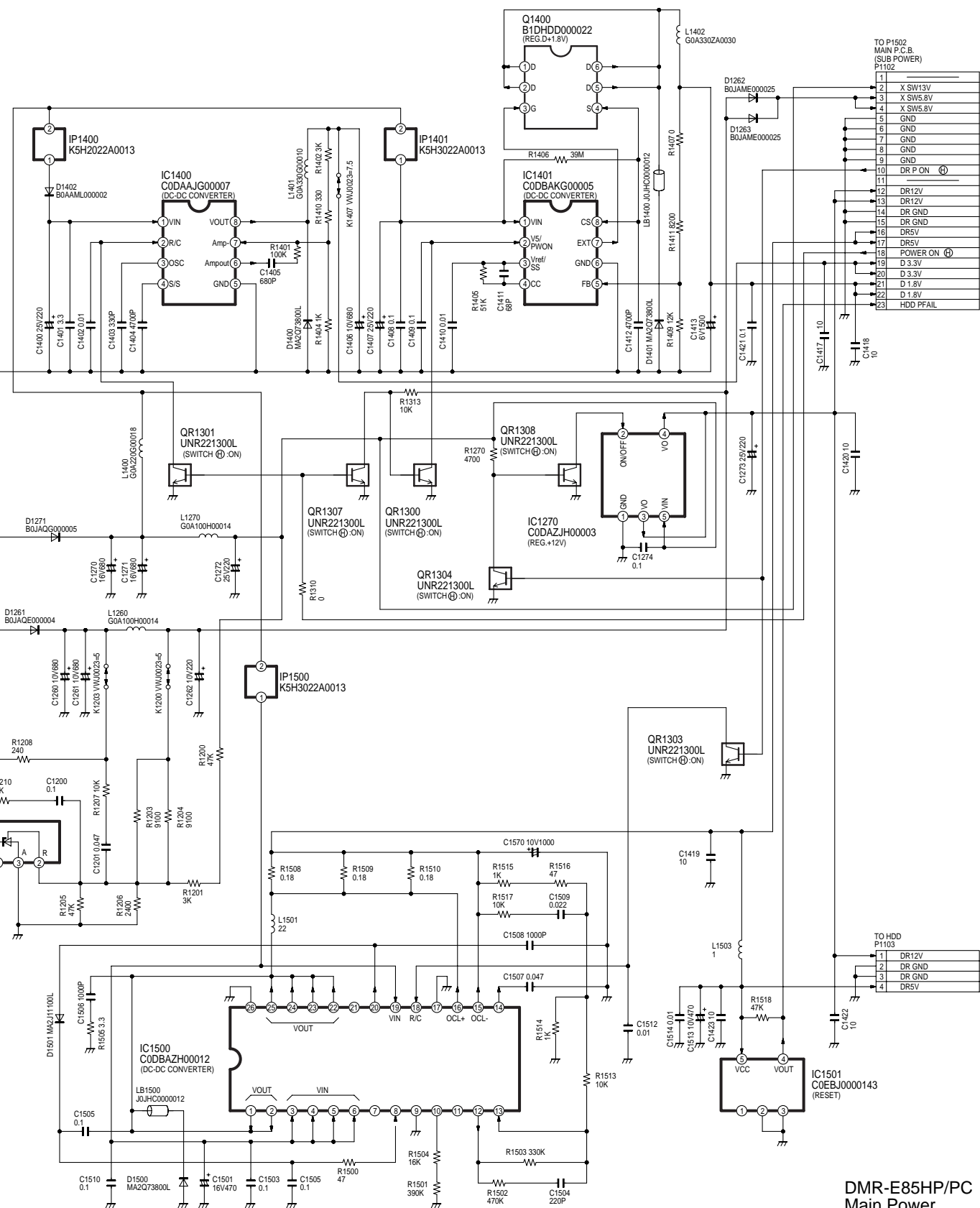
## 19.1. Interconnection Schematic Diagram





DMR-E85HP/PC  
Interconnection  
Schematic Diagram



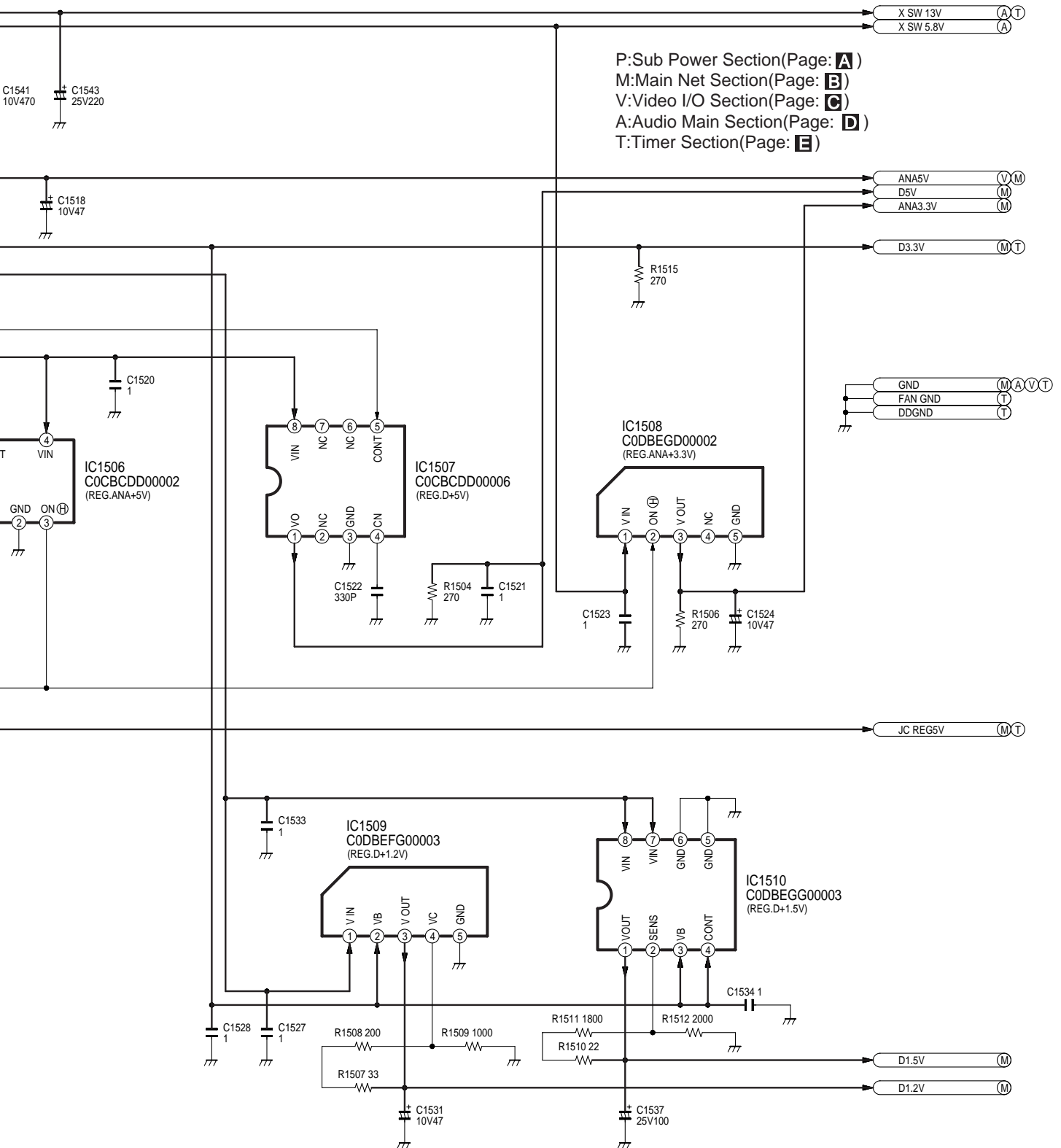


DMR-E85HP/PC  
Main Power  
Schematic Diagram



NOTE:DO NOT USE THE PART NUMBER SHOWN  
IN THE PARTS LIST, AND MAY BE SUPPLIED

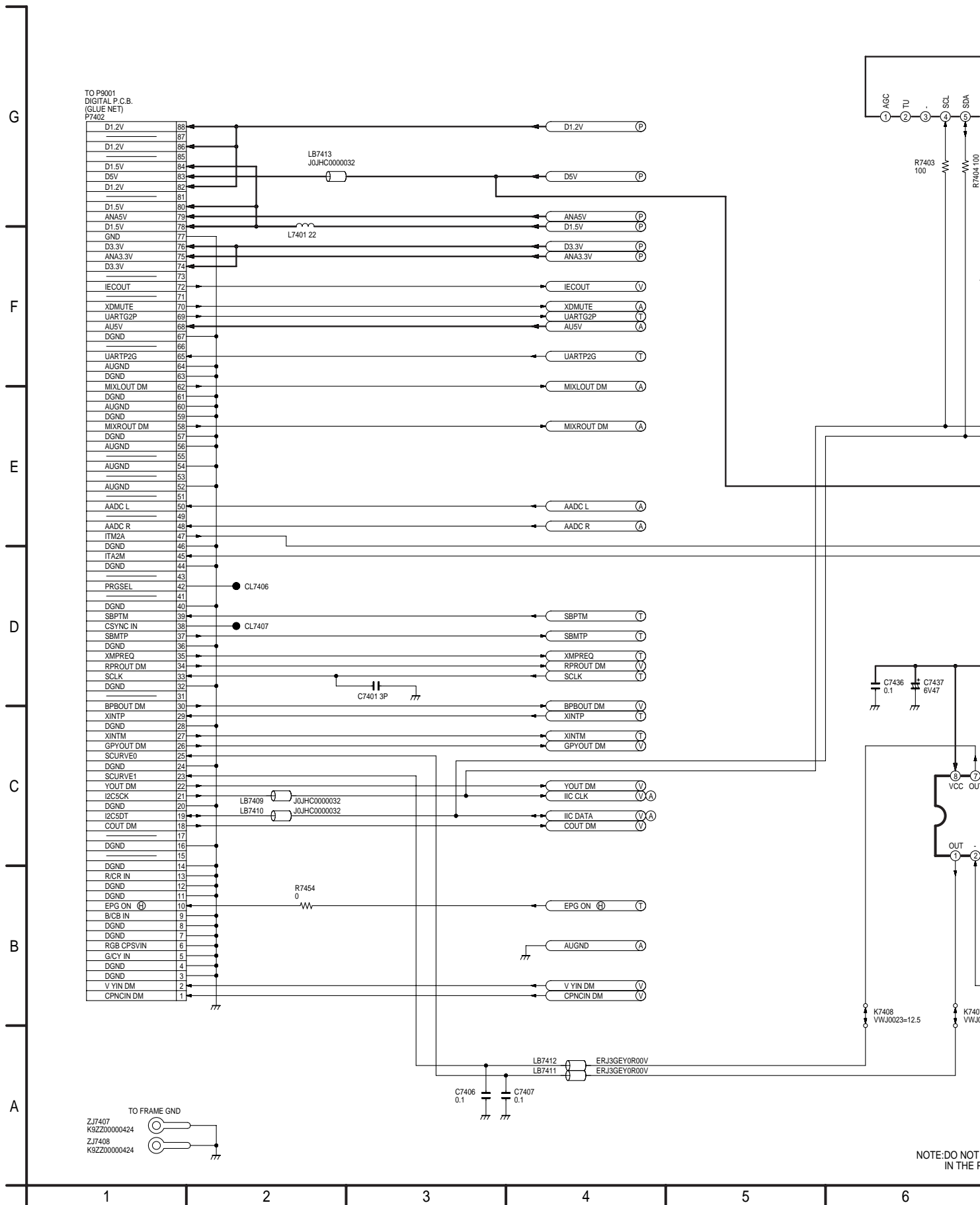


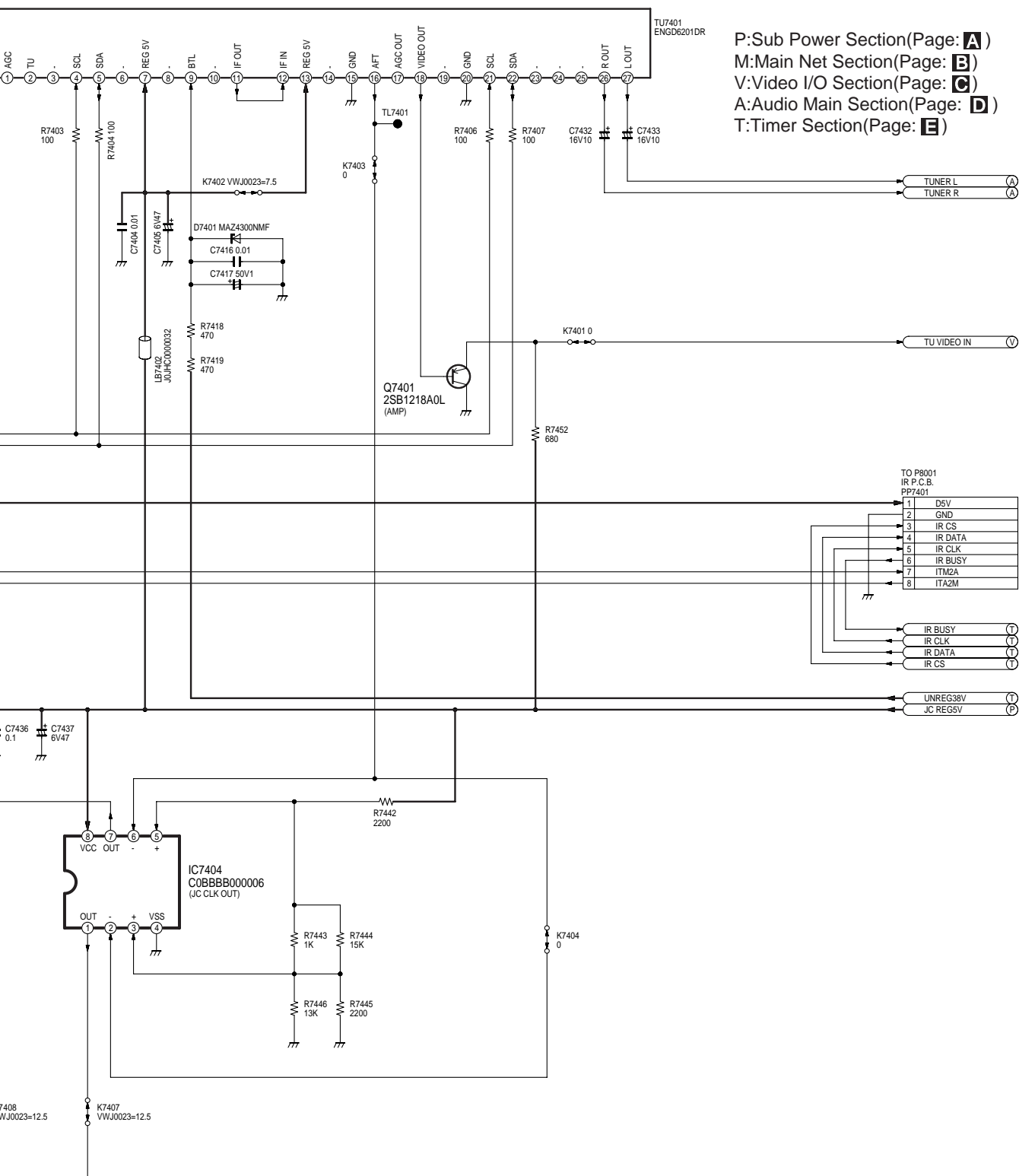


PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN  
ST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Sub Power Section (Main P.C.B(1/5))  
Schematic Diagram (P)

19.4. Main Net Section (Main P.C.B. (2/5)) Schematic Diagram (M)

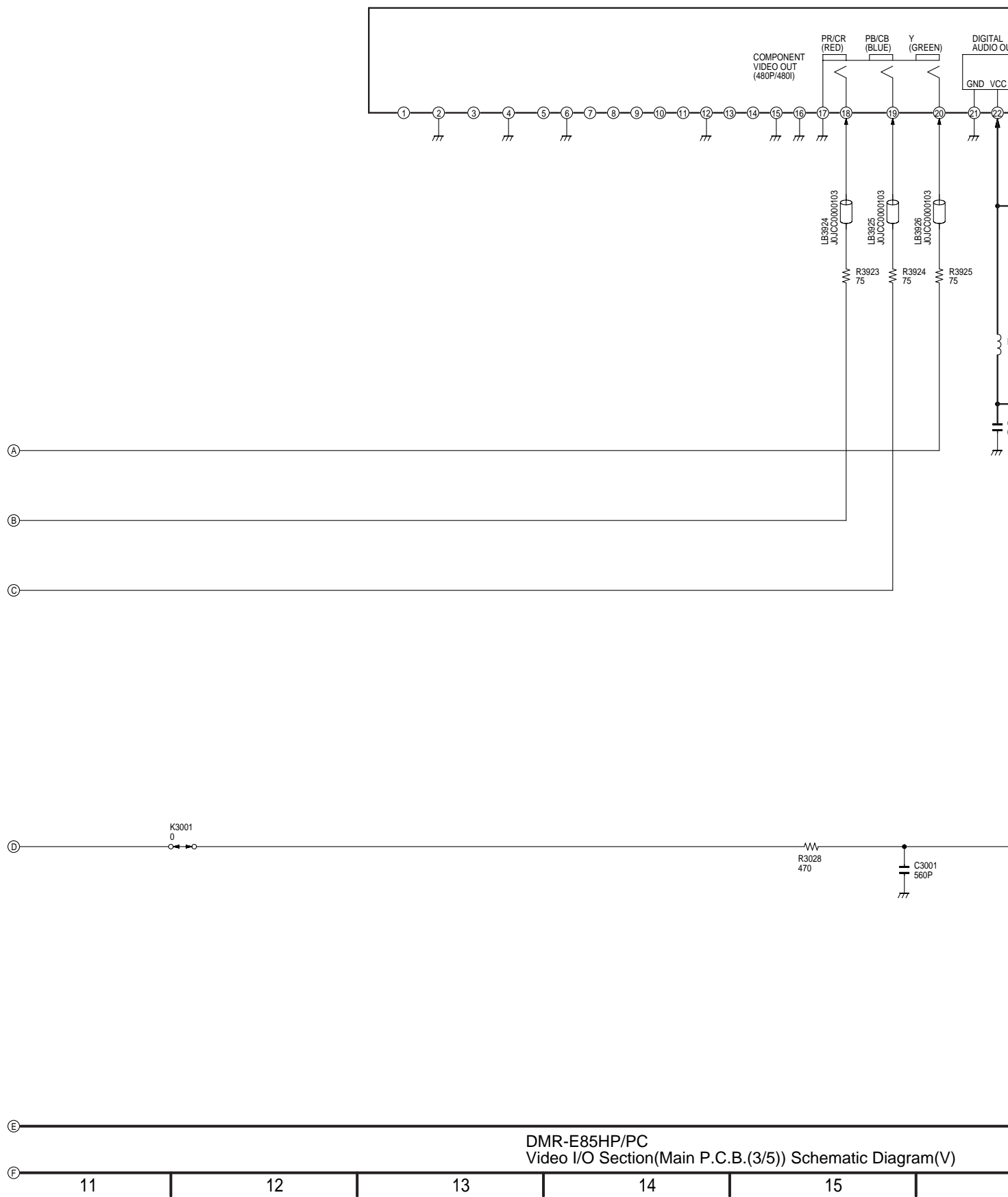




DMR-E85HP/PC  
Main Net Section(Main P.C.B.(2/5))  
Schematic Diagram(M)

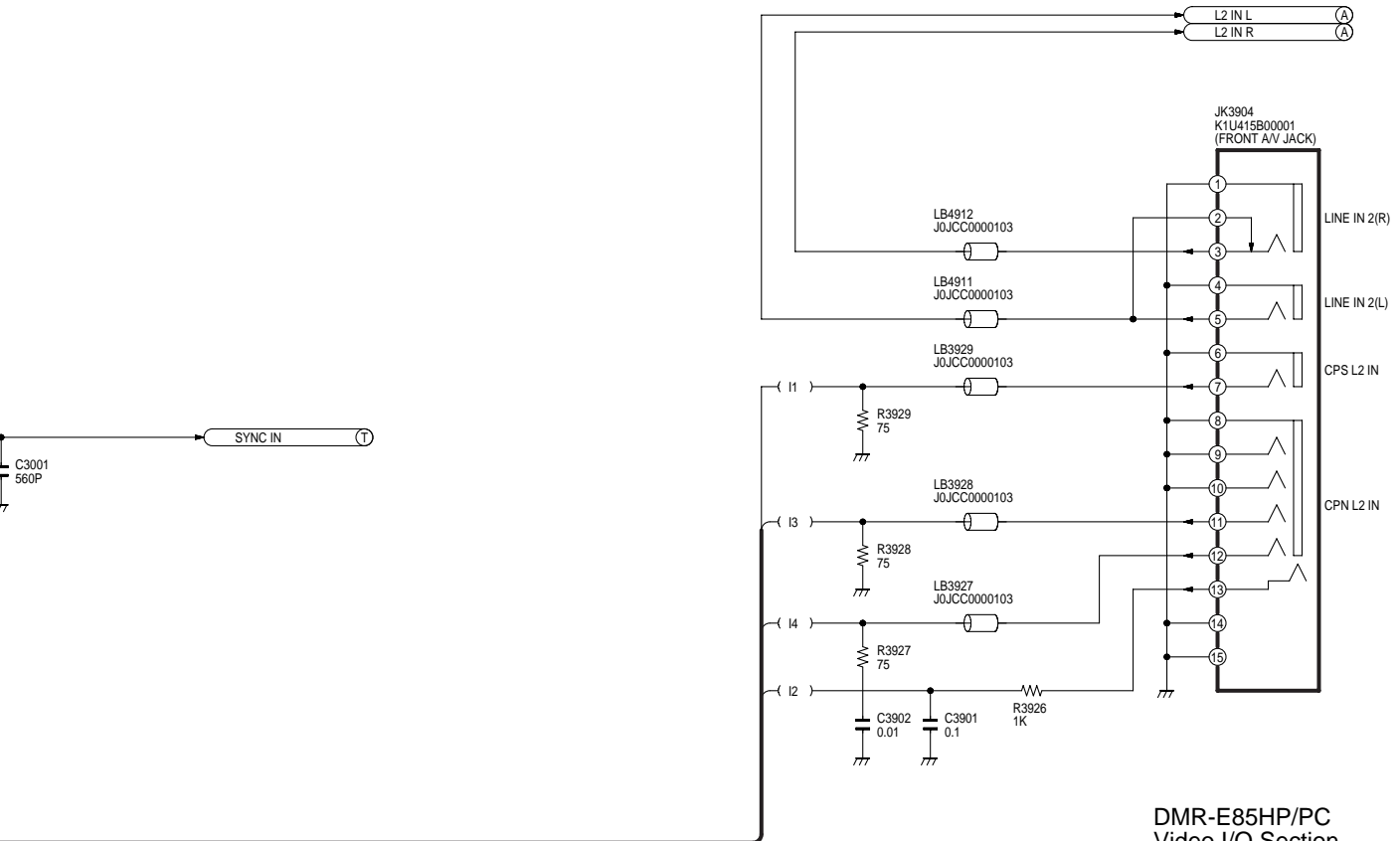
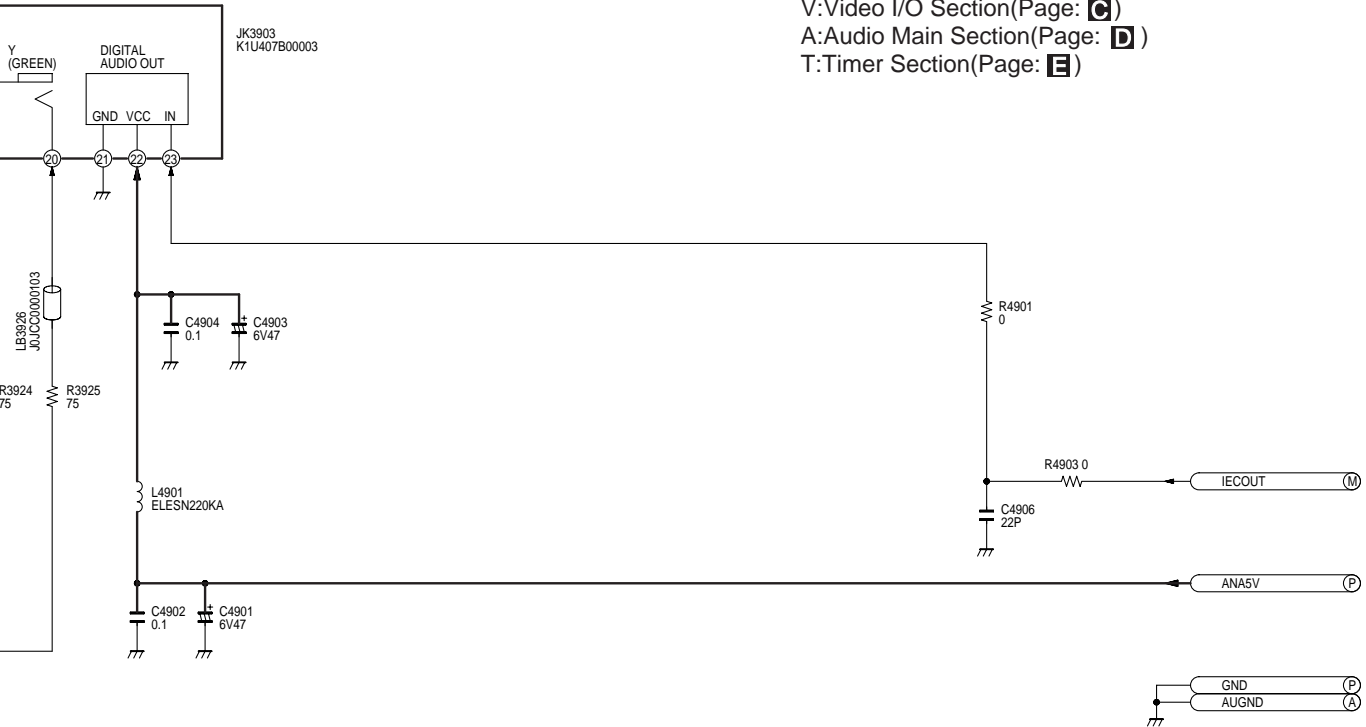






C

P:Sub Power Section(Page: A )  
M:Main Net Section(Page: B )  
V:Video I/O Section(Page: C )  
A:Audio Main Section(Page: D )  
T:Timer Section(Page: E )



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Video I/O Section  
(Main P.C.B.(3/5))  
Schematic Diagram(V)

16

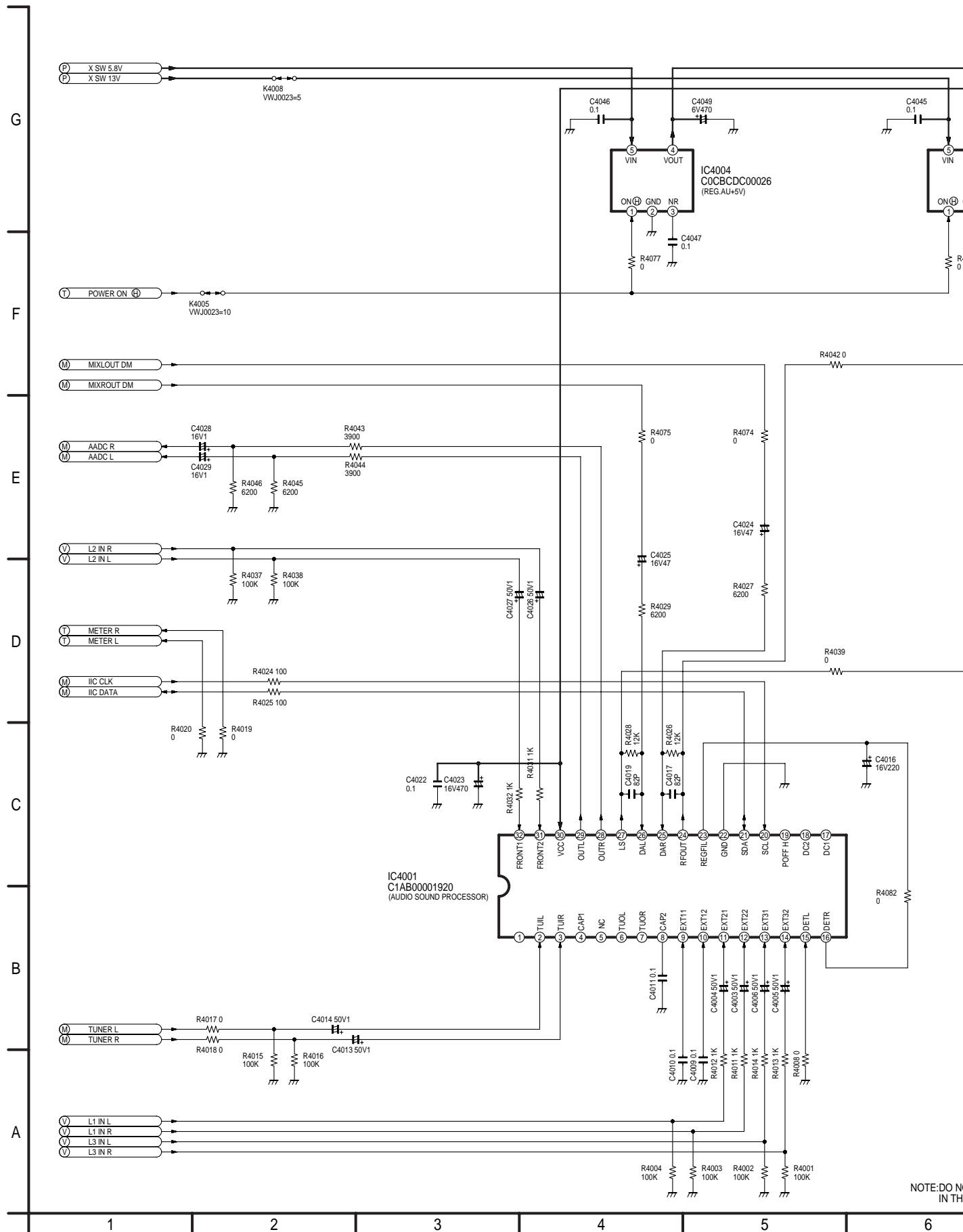
17

18

19

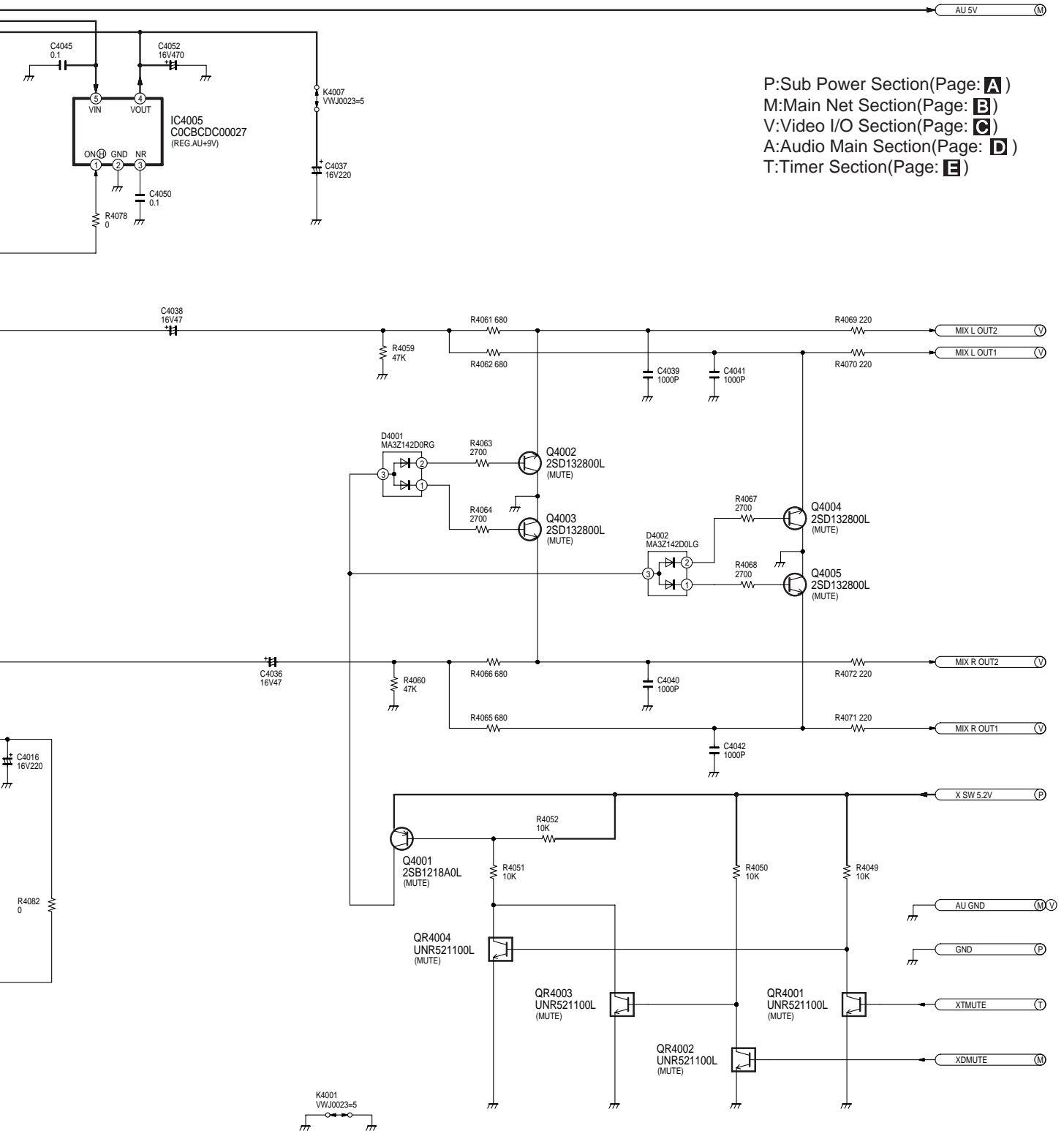
20

## 19.6. Audio Main Section (Main P.C.B. (4/5)) Schematic Diagram (A)



NOTE: DO NOT  
IN TH



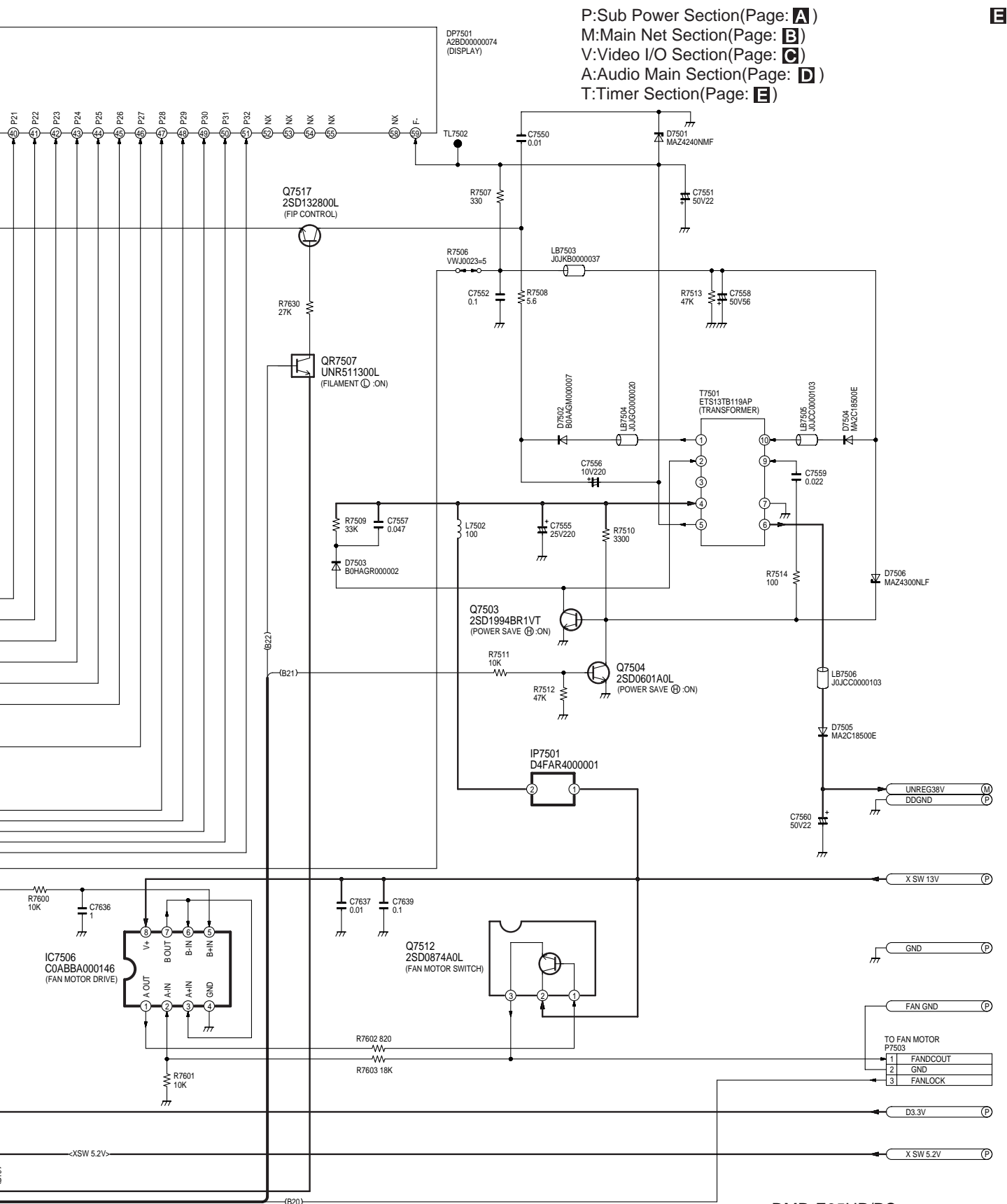


DMR-E85HP/PC  
Audio Main Section(Main P.C.B.(4/5))  
Schematic Diagram(A)









DMR-E85HP/PC  
Timer Section(Main P.C.B.(5/5))  
Schematic Diagram(T)

17

18

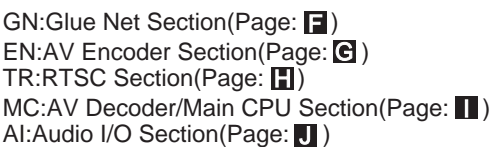
19

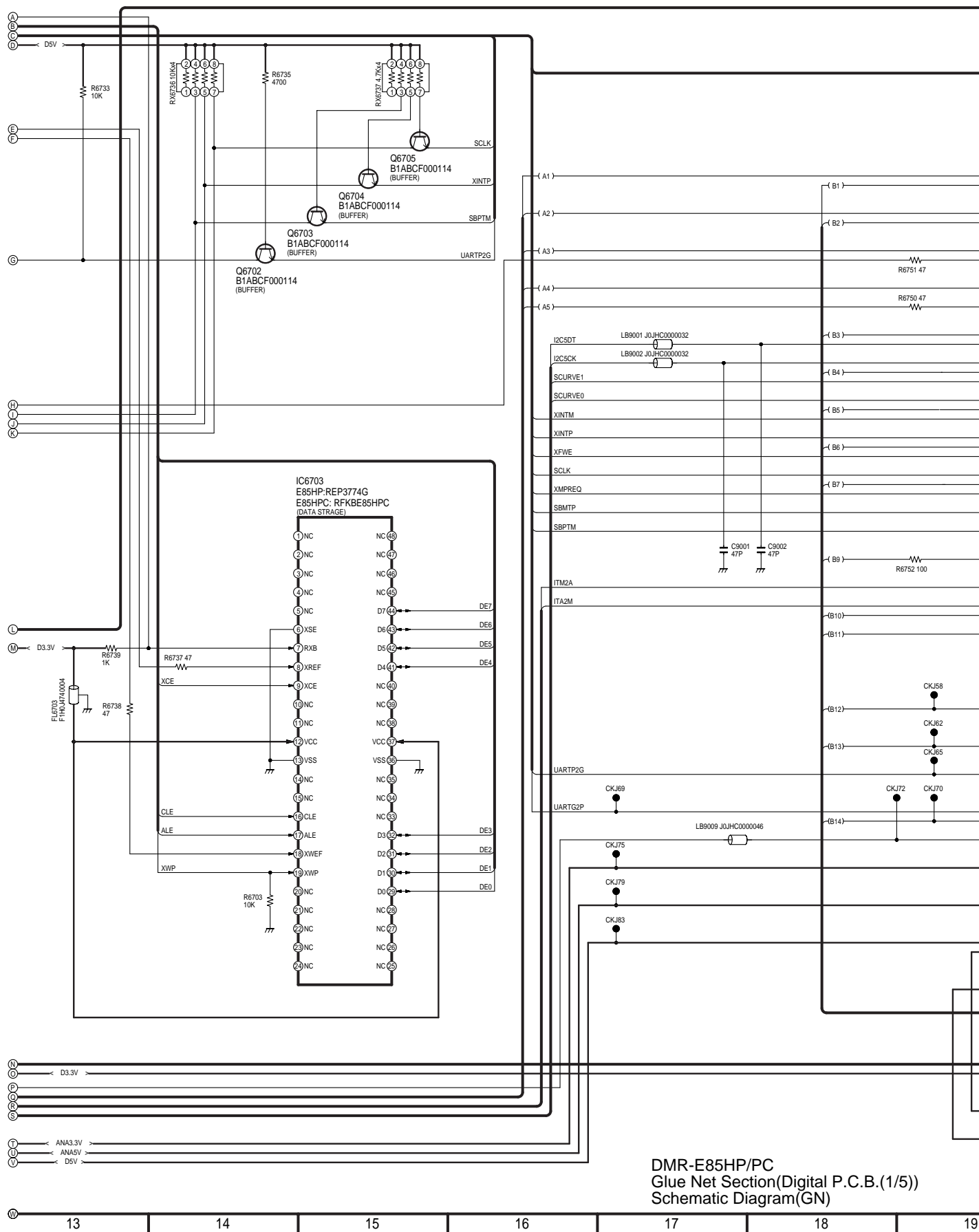
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21

22





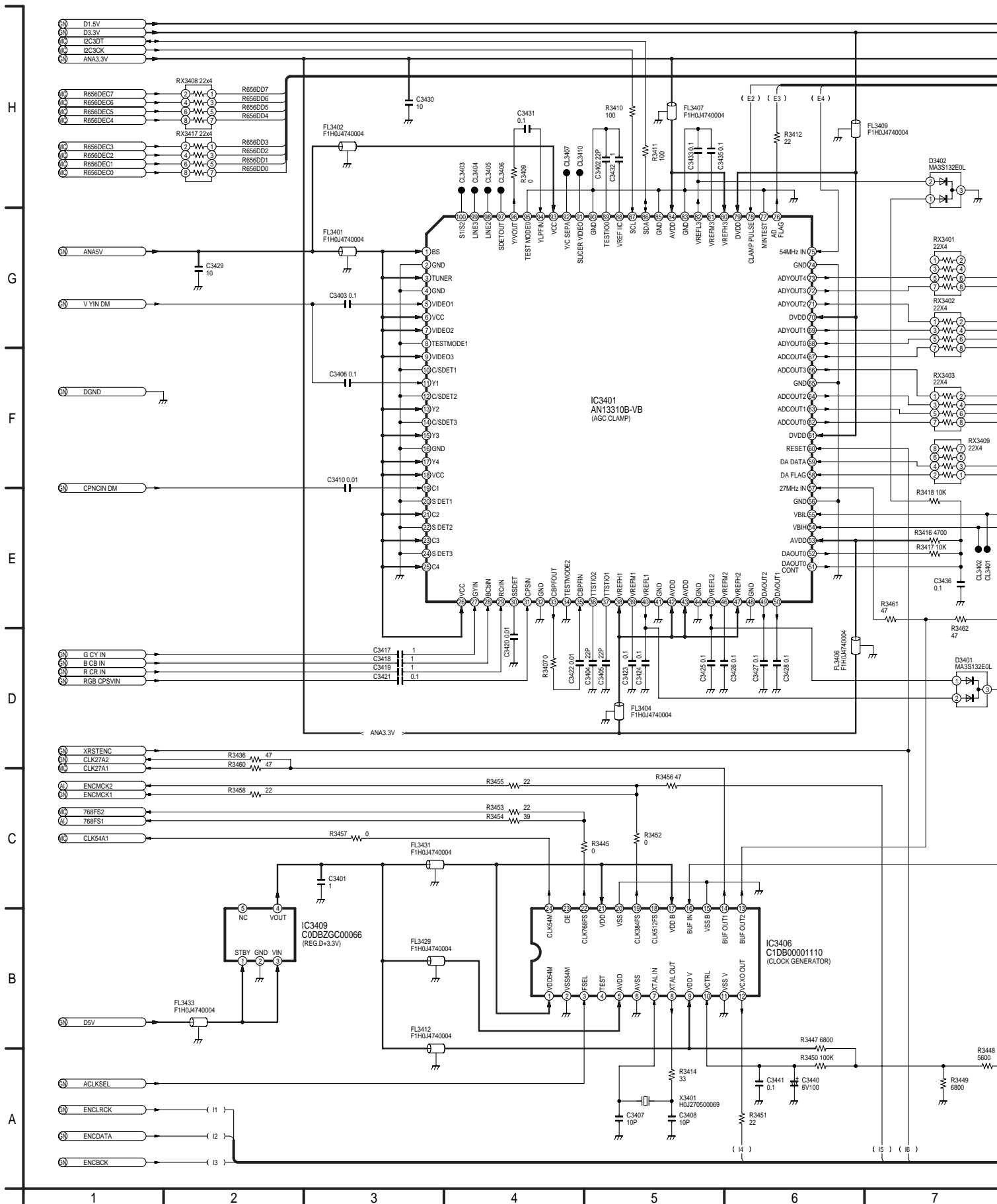


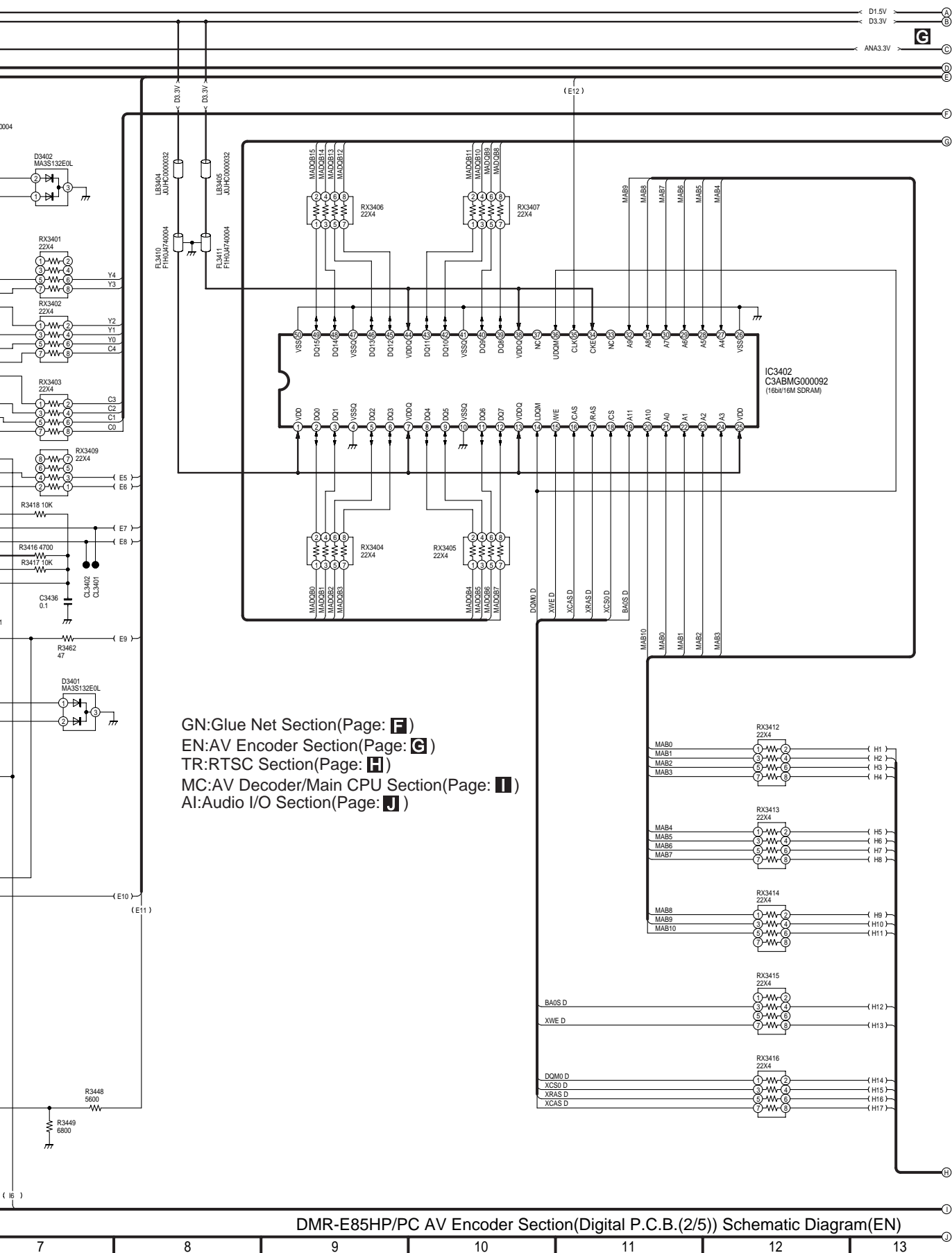
DMR-E85HP/PC  
Glue Net Section(Digital P.C.B.(1/5))  
Schematic Diagram(GN)

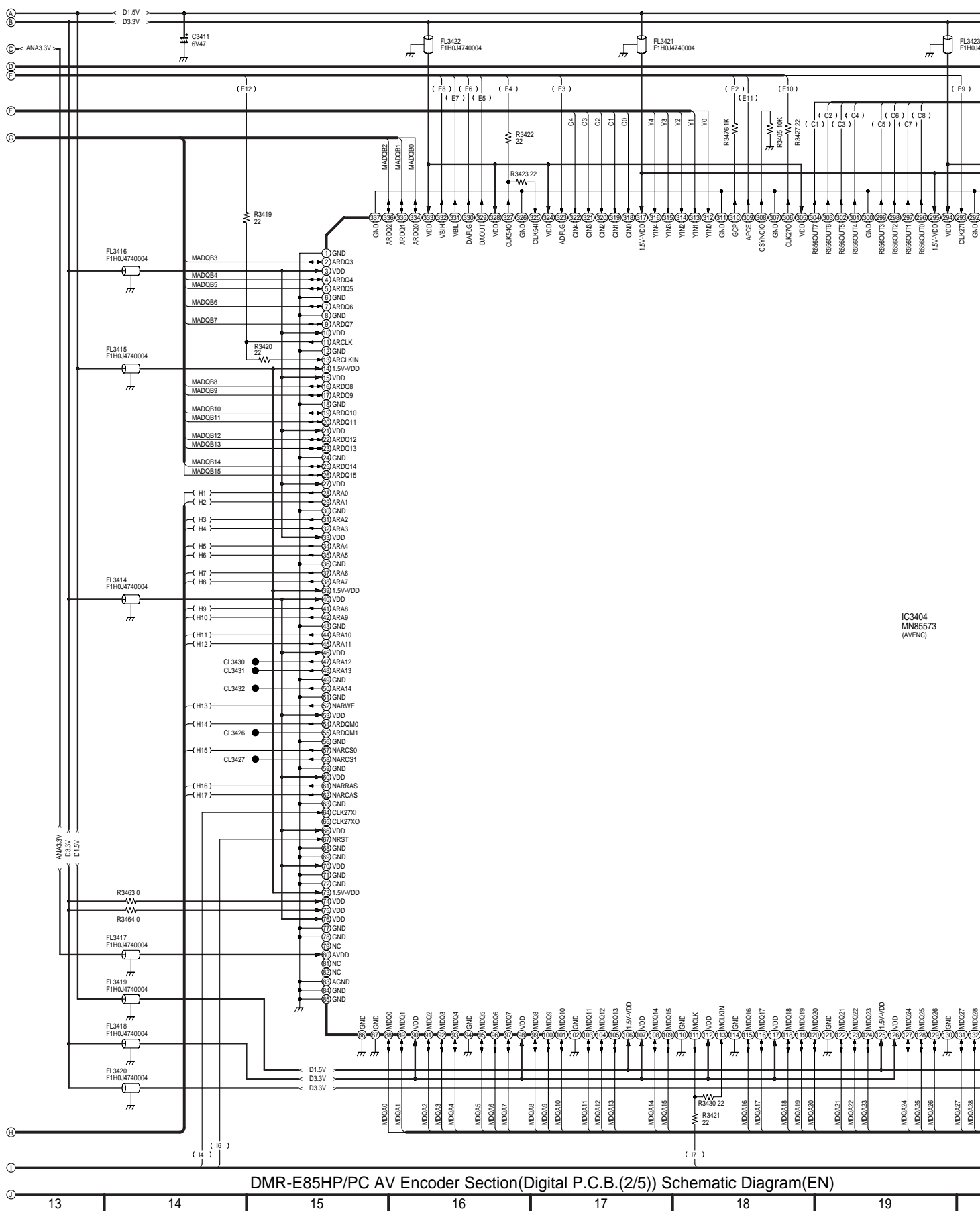




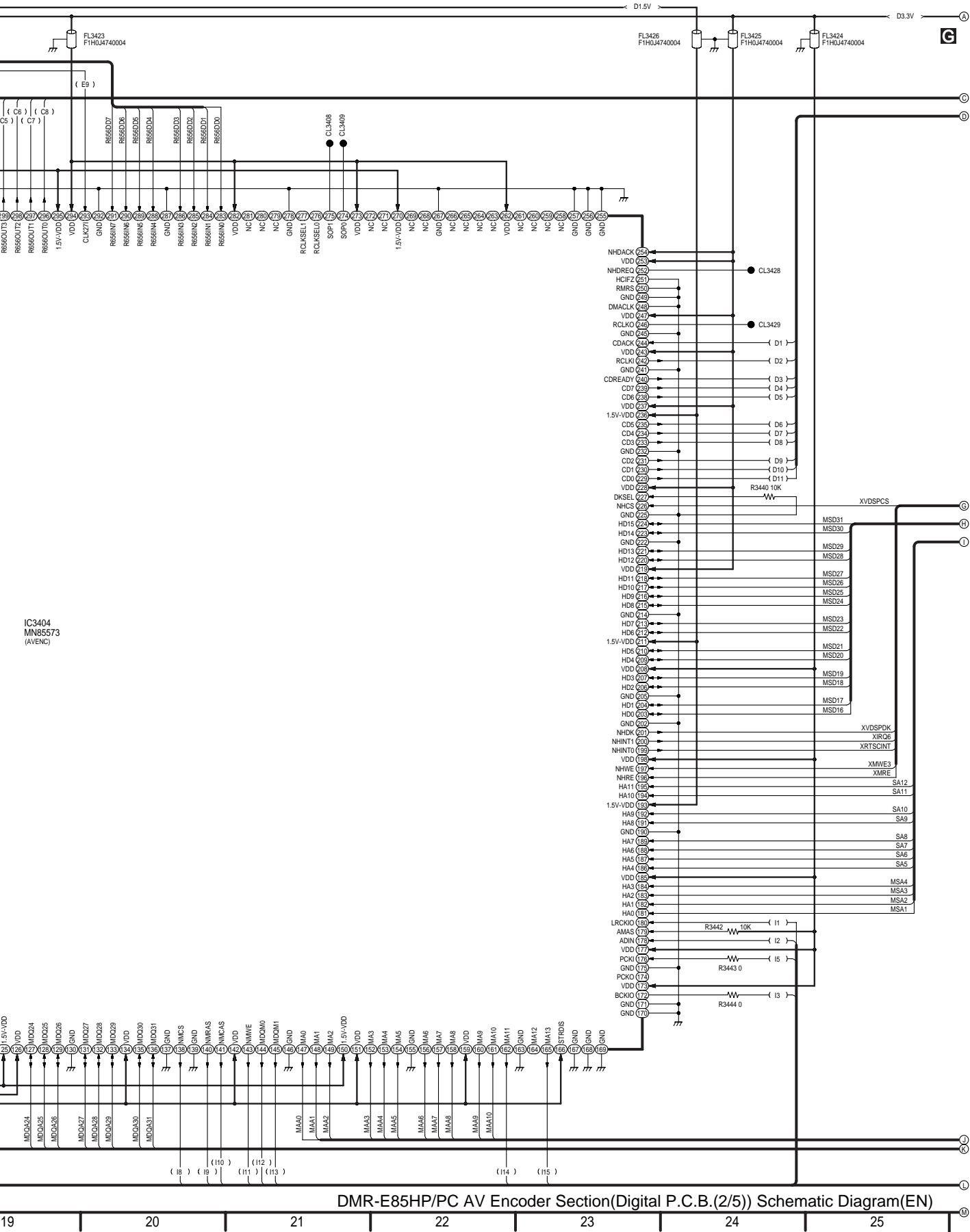
## 19.9. AV Encoder Section (Digital P.C.B. (2/5)) Schematic Diagram (EN)

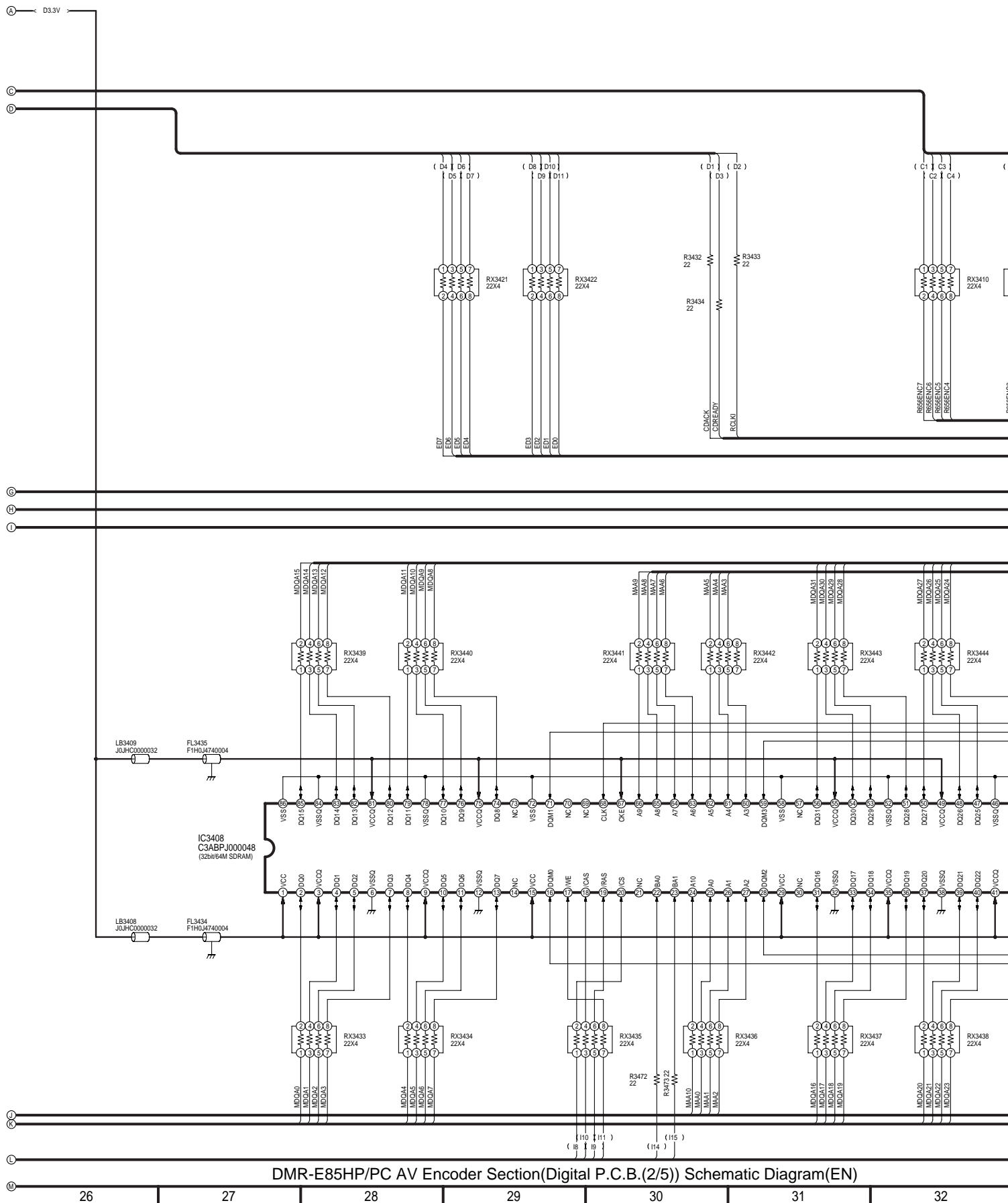


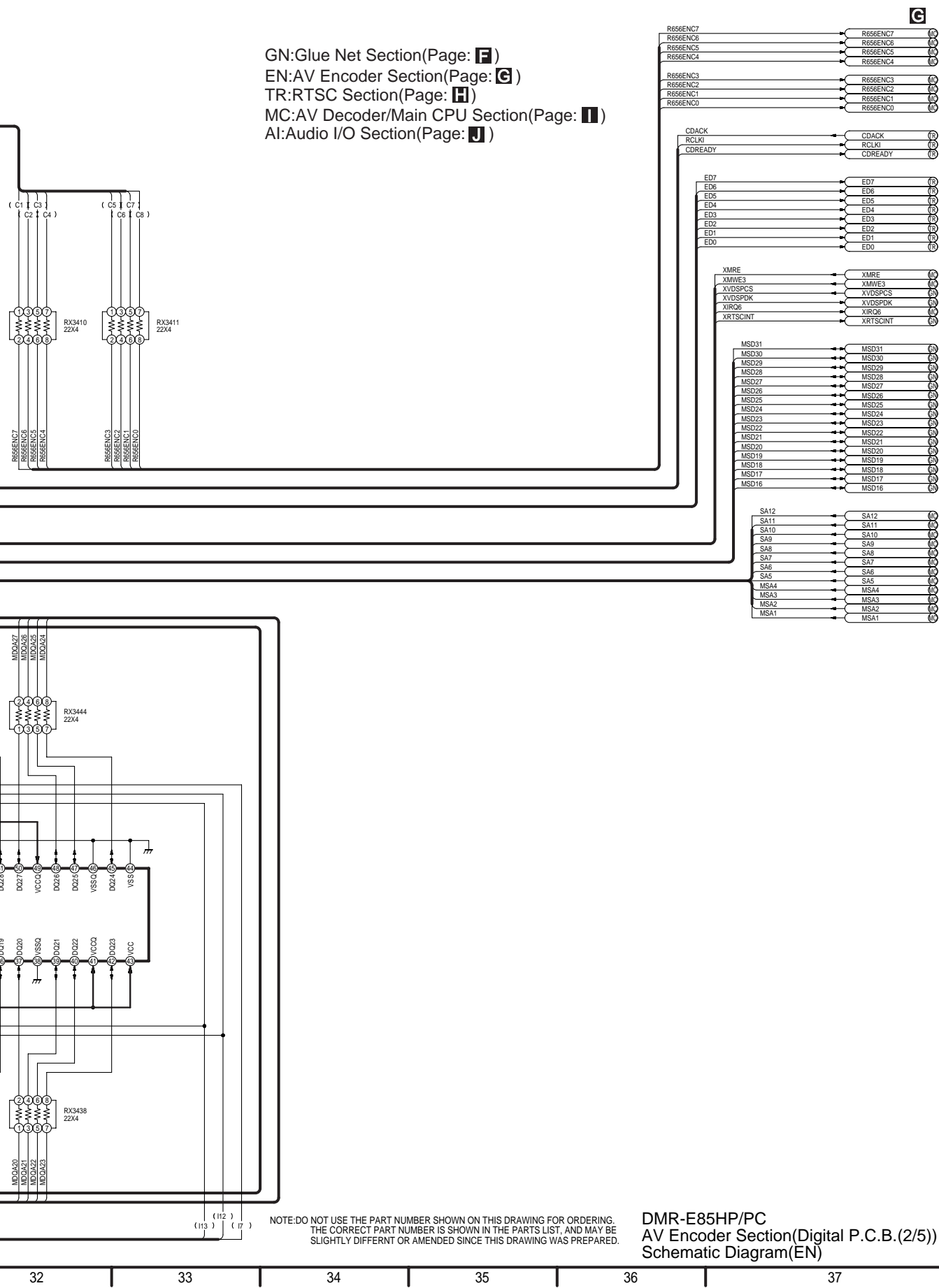




IC3404  
MN85573  
(AVENC)

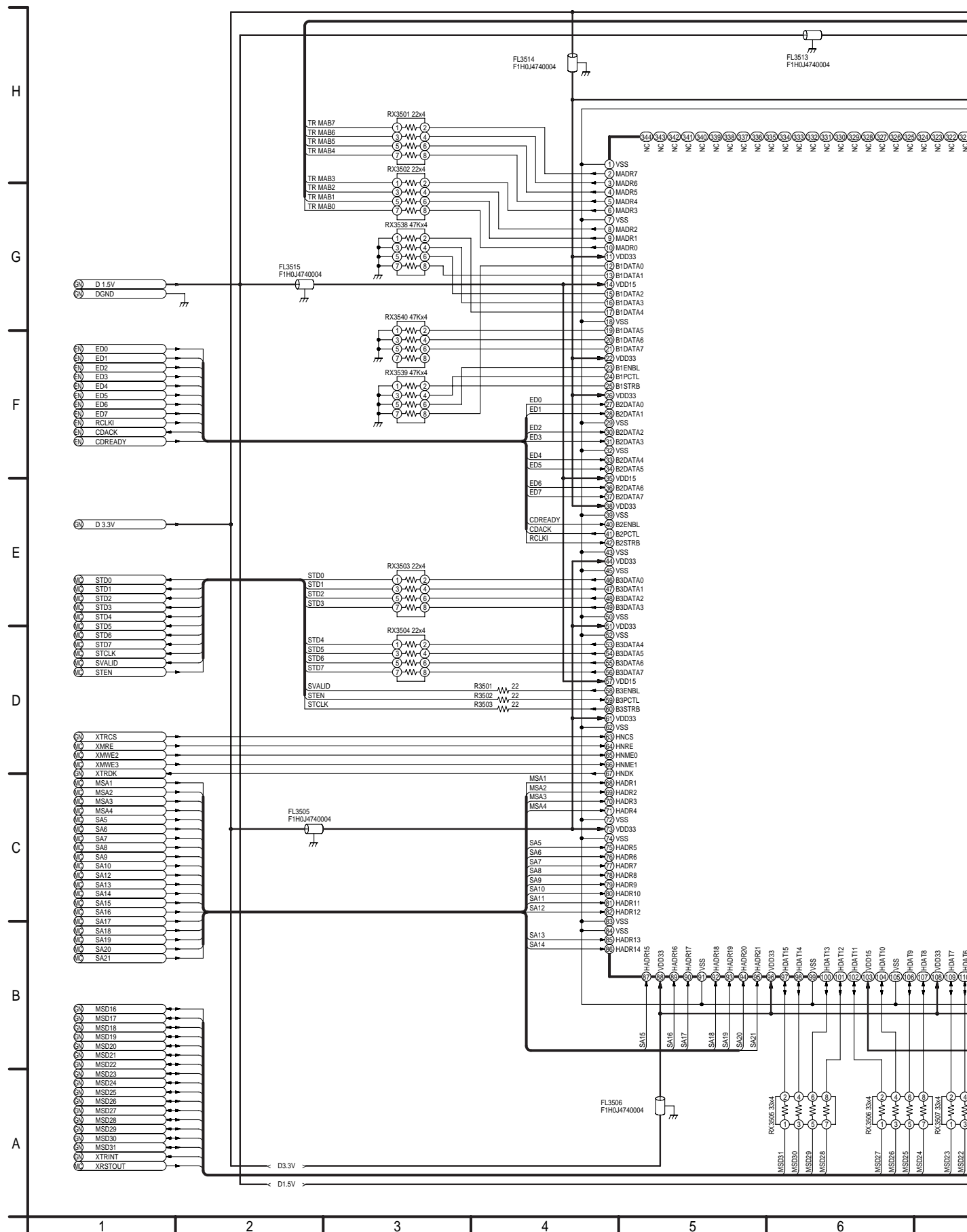






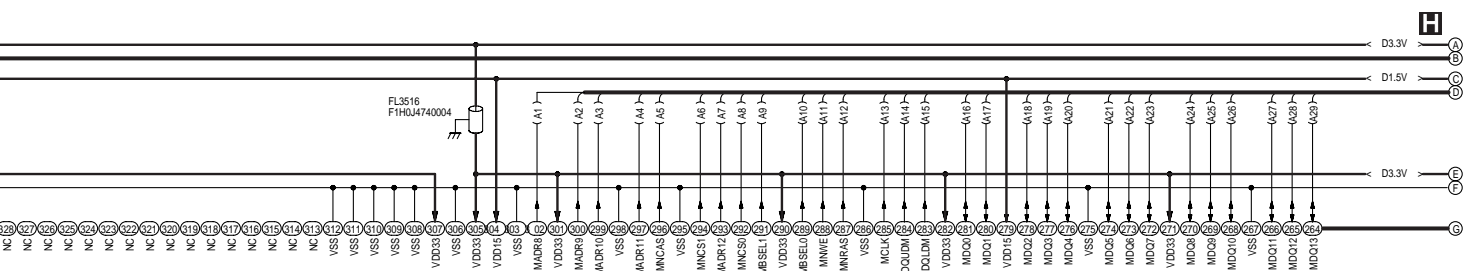
DMR-E85HP/PC  
 AV Encoder Section(Digital P.C.B.(2/5))  
 Schematic Diagram(EN)

## 19.10. Real Time Stream Control (RTSC) Section (Digital P.C.B. (3/5)) Schematic Diagram



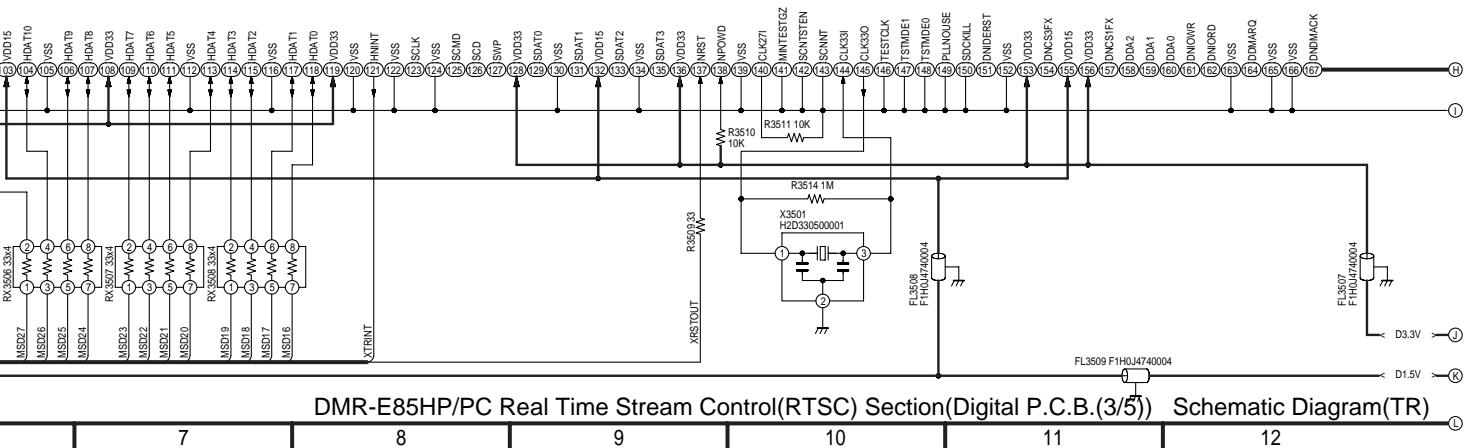


# Schematic Diagram (TR)



GN:Glue Net Section(Page: **F**)  
 EN:AV Encoder Section(Page: **G**)  
 TR:RTSC Section(Page: **H**)  
 MC:AV Decoder/Main CPU Section(Page: **I**)  
 AI:Audio I/O Section(Page: **J**)

IC3501  
 MN88302  
 (RTSC)

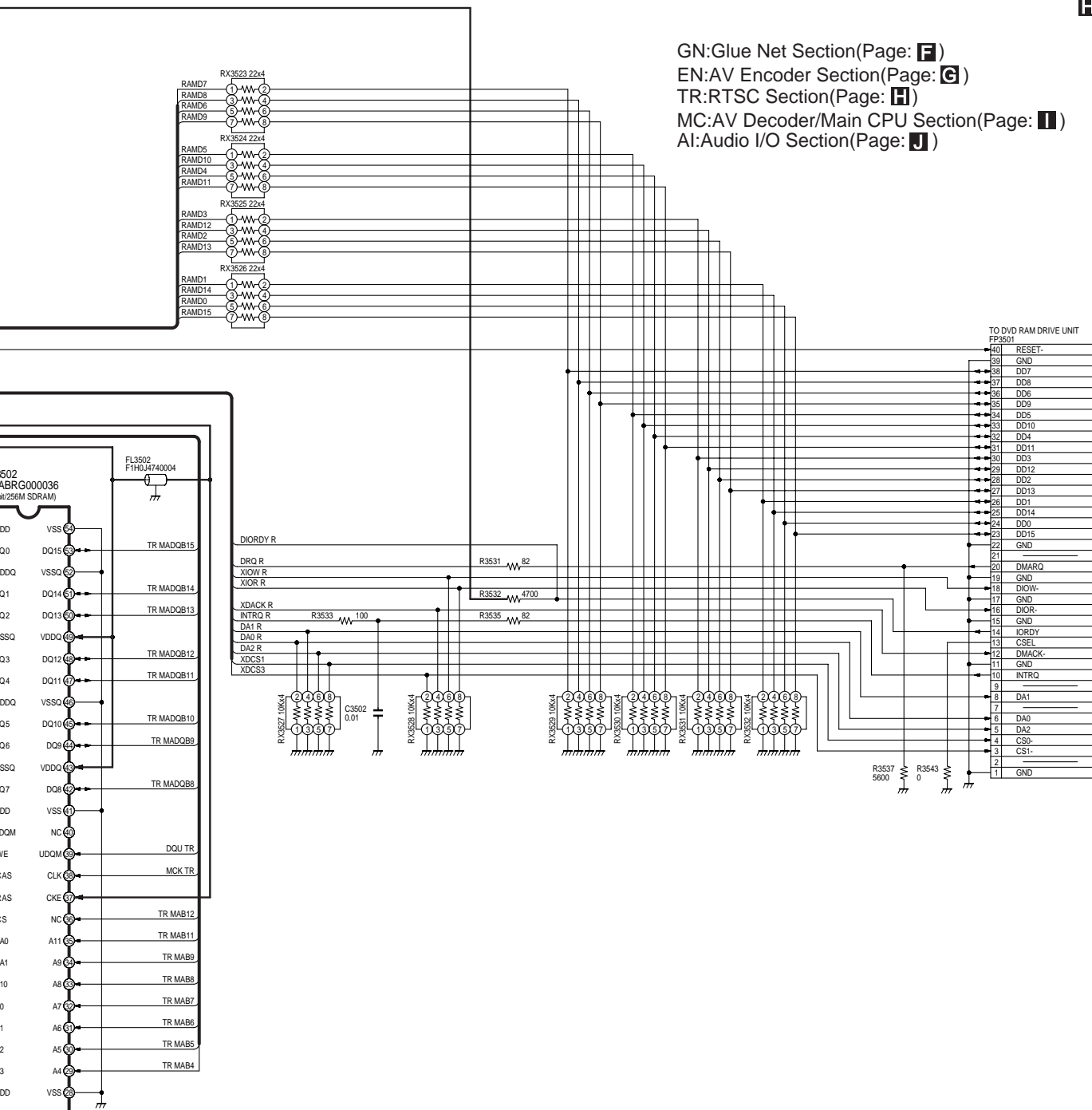


DMR-E85HP/PC Real Time Stream Control(RTSC) Section(Digital P.C.B.(3/5)) Schematic Diagram(TR)





GN:Glue Net Section(Page: **F**)  
EN:AV Encoder Section(Page: **G**)  
TR:RTSC Section(Page: **H**)  
MC:AV Decoder/Main CPU Section(Page: **I**)  
AI:Audio I/O Section(Page: **J**)

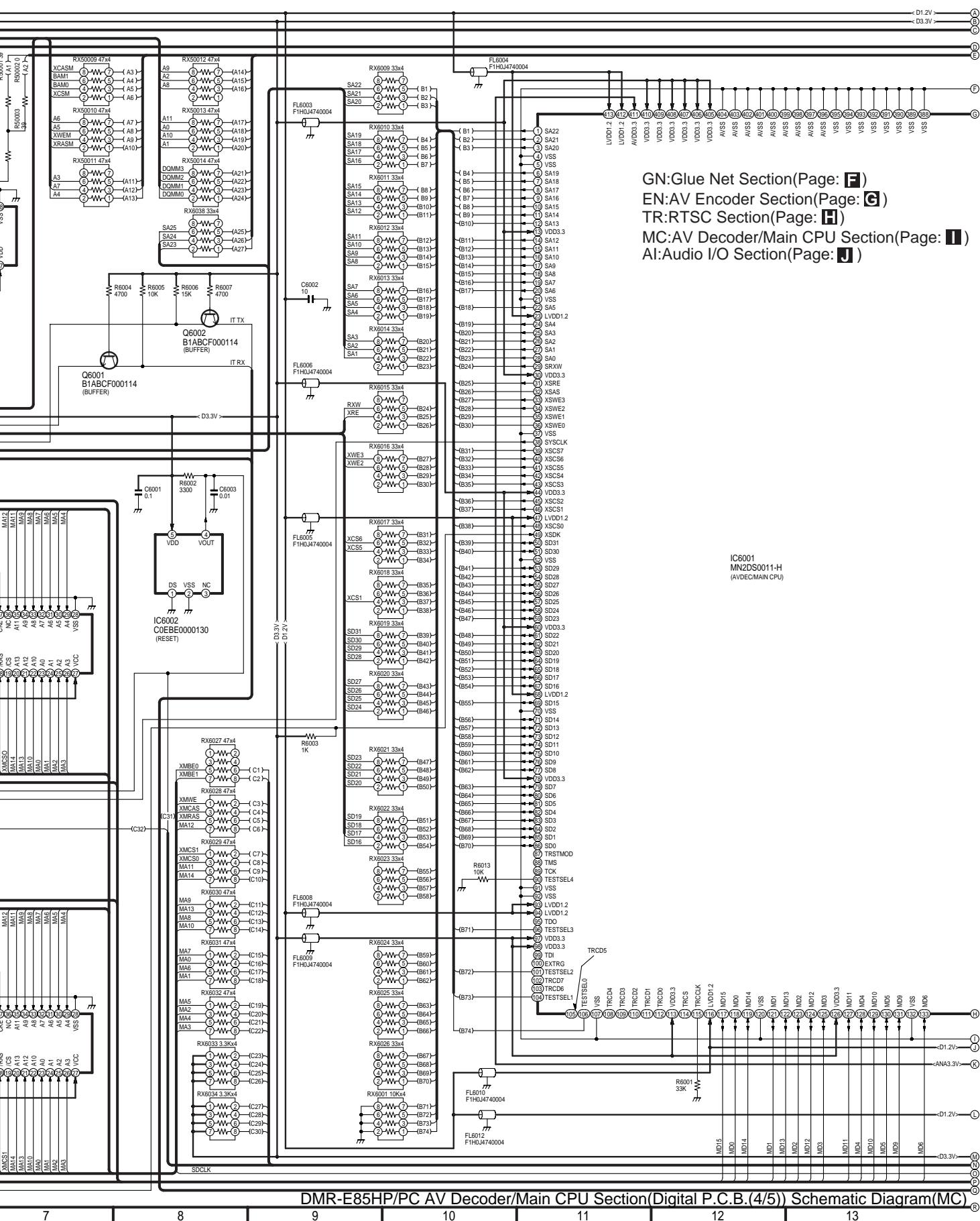


NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Real Time Stream Control(RTSC) Section(Digital P.C.B.(3/5))  
Schematic Diagram (TR)

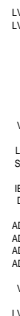
19 20 21 22 23 24 25

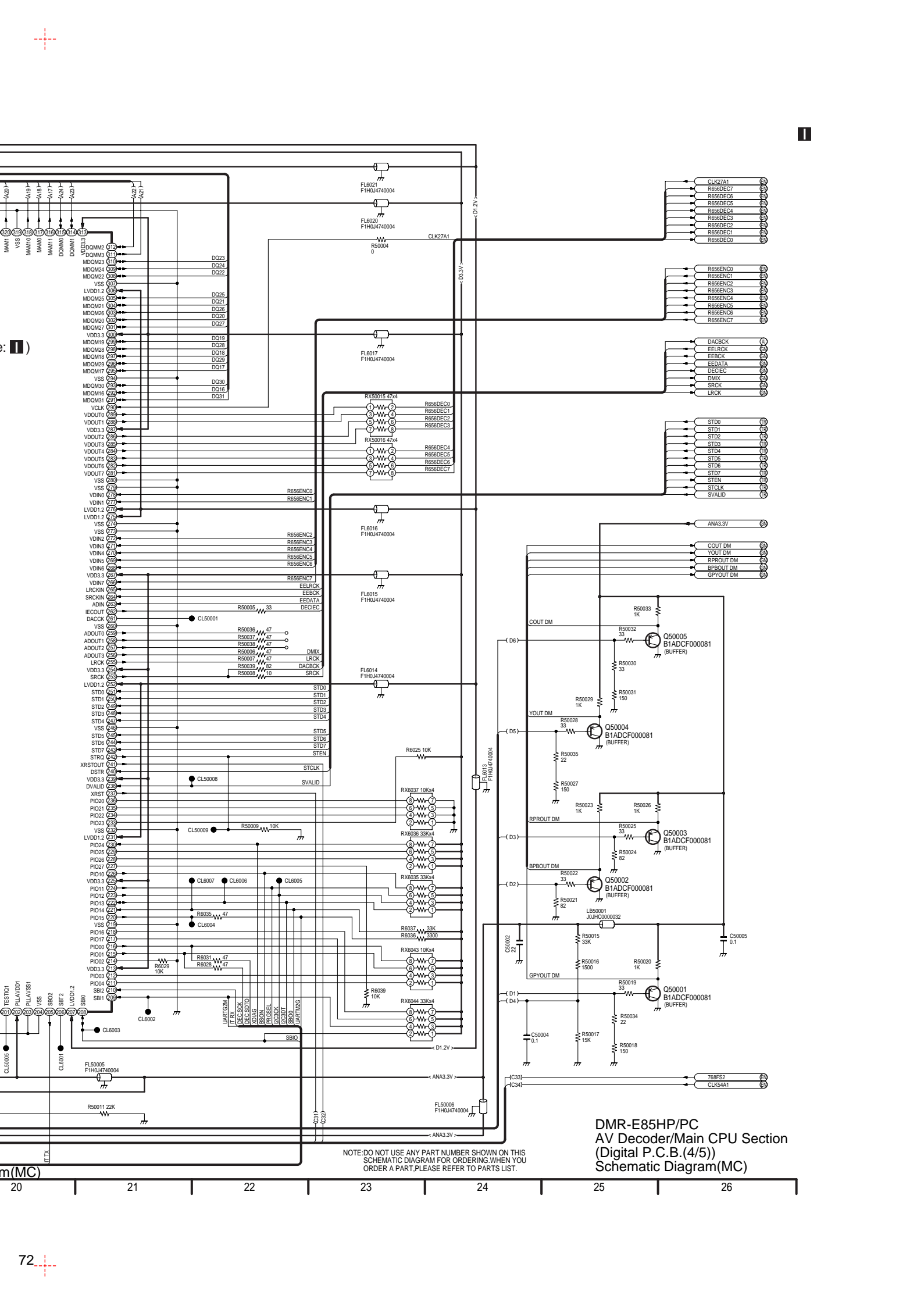




AI:Audio I/O Section(Page: **J** )

LV  
 ME  
 ME  
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 VE

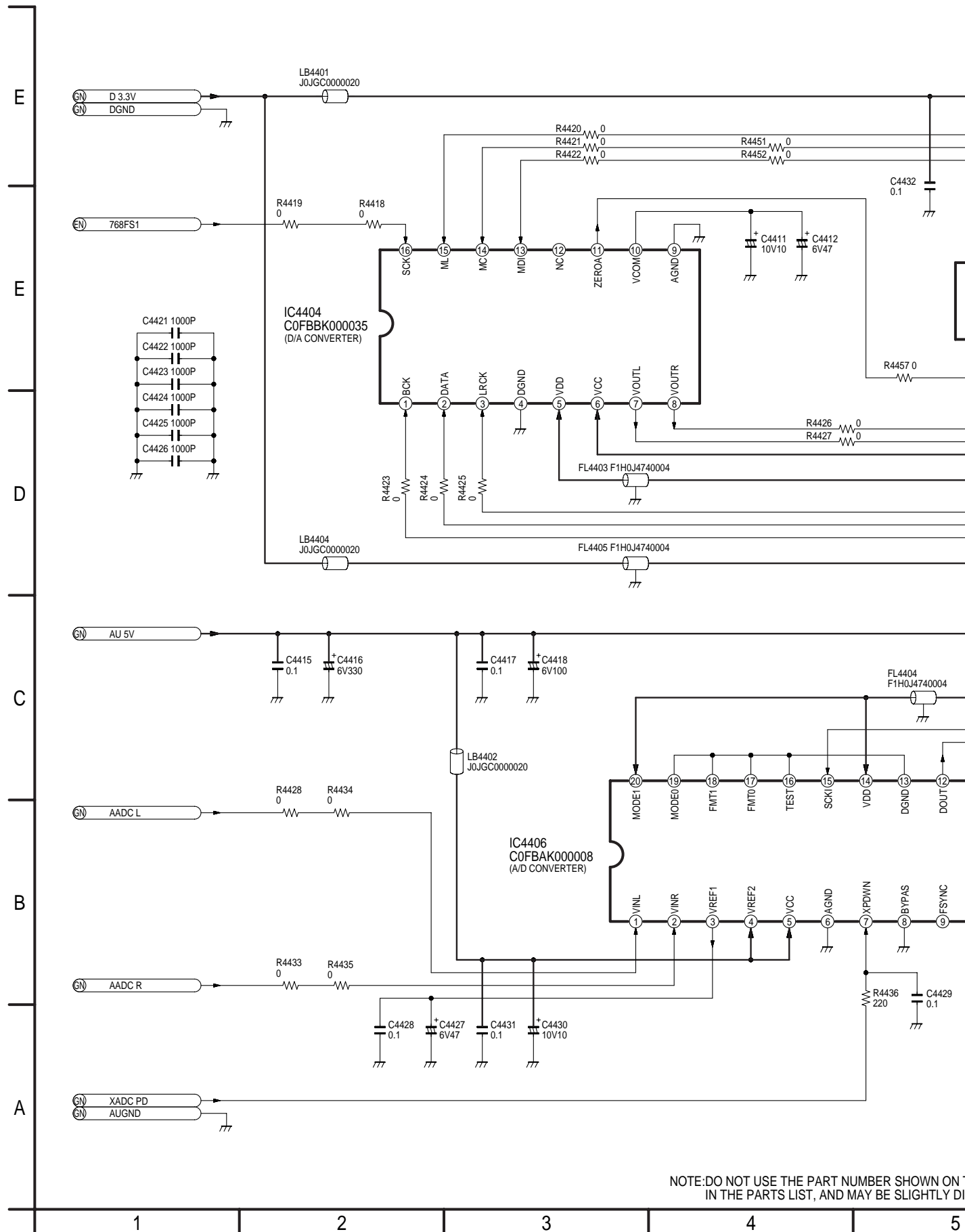




NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

DMR-E85HP/PC  
AV Decoder/Main CPU Section  
(Digital P.C.B. (4/5))  
Schematic Diagram(MC)

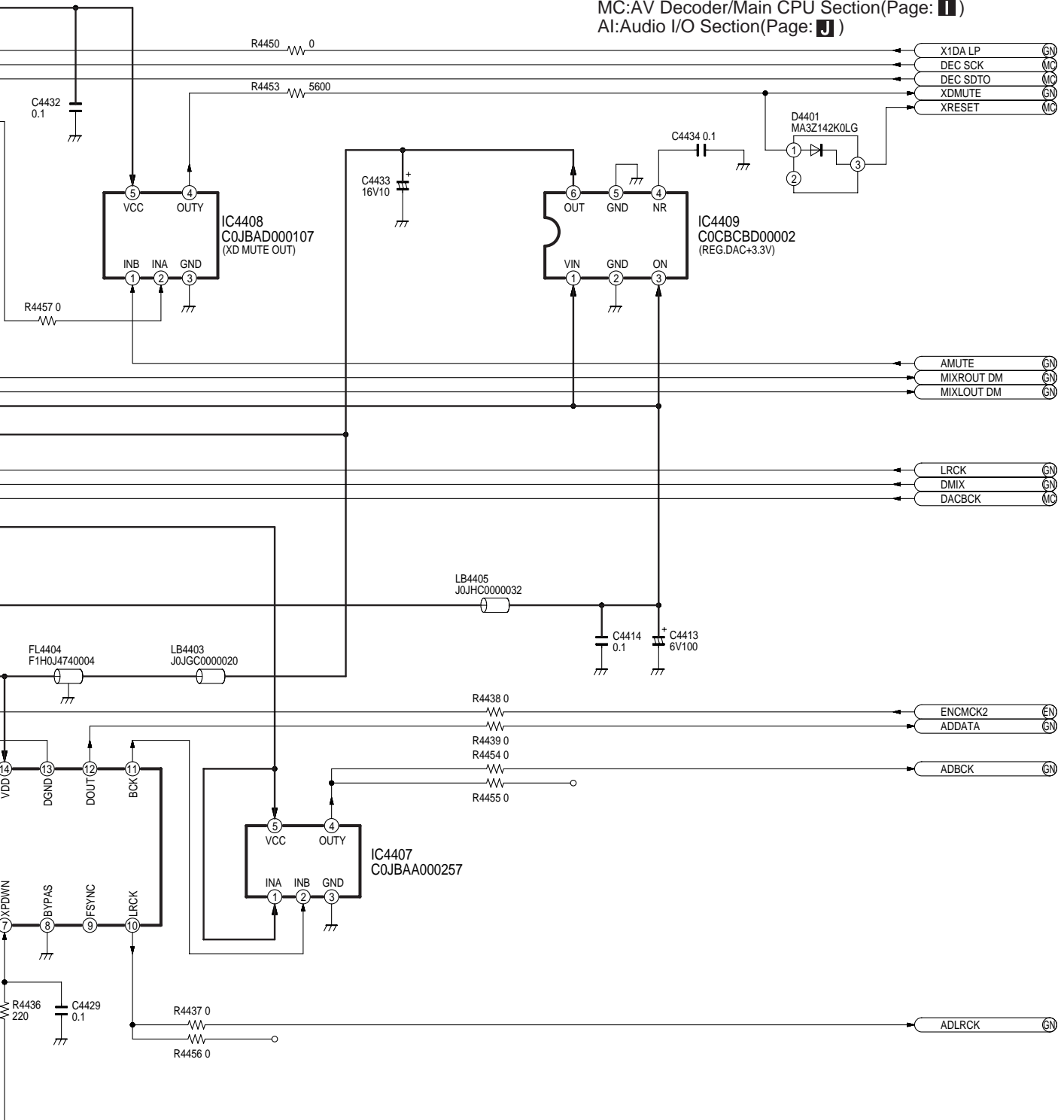
## 19.12. Audio I/O Section (Digital P.C.B. (5/5)) Schematic Diagram (AI)





GN:Glue Net Section(Page: **F**)  
 EN:AV Encoder Section(Page: **G**)  
 TR:RTSC Section(Page: **H**)  
 MC:AV Decoder/Main CPU Section(Page: **I**)  
 AI:Audio I/O Section(Page: **J**)

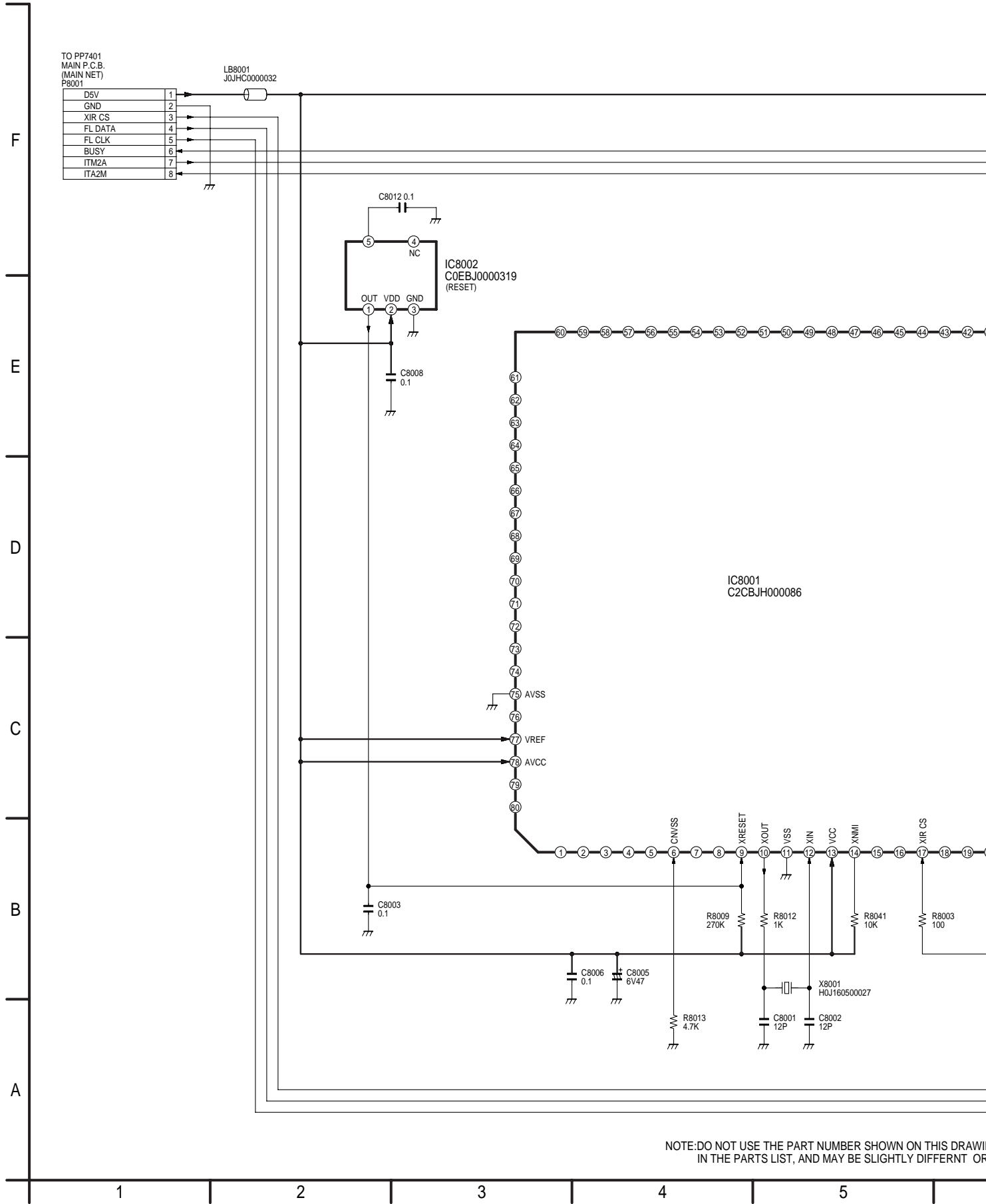
**J**

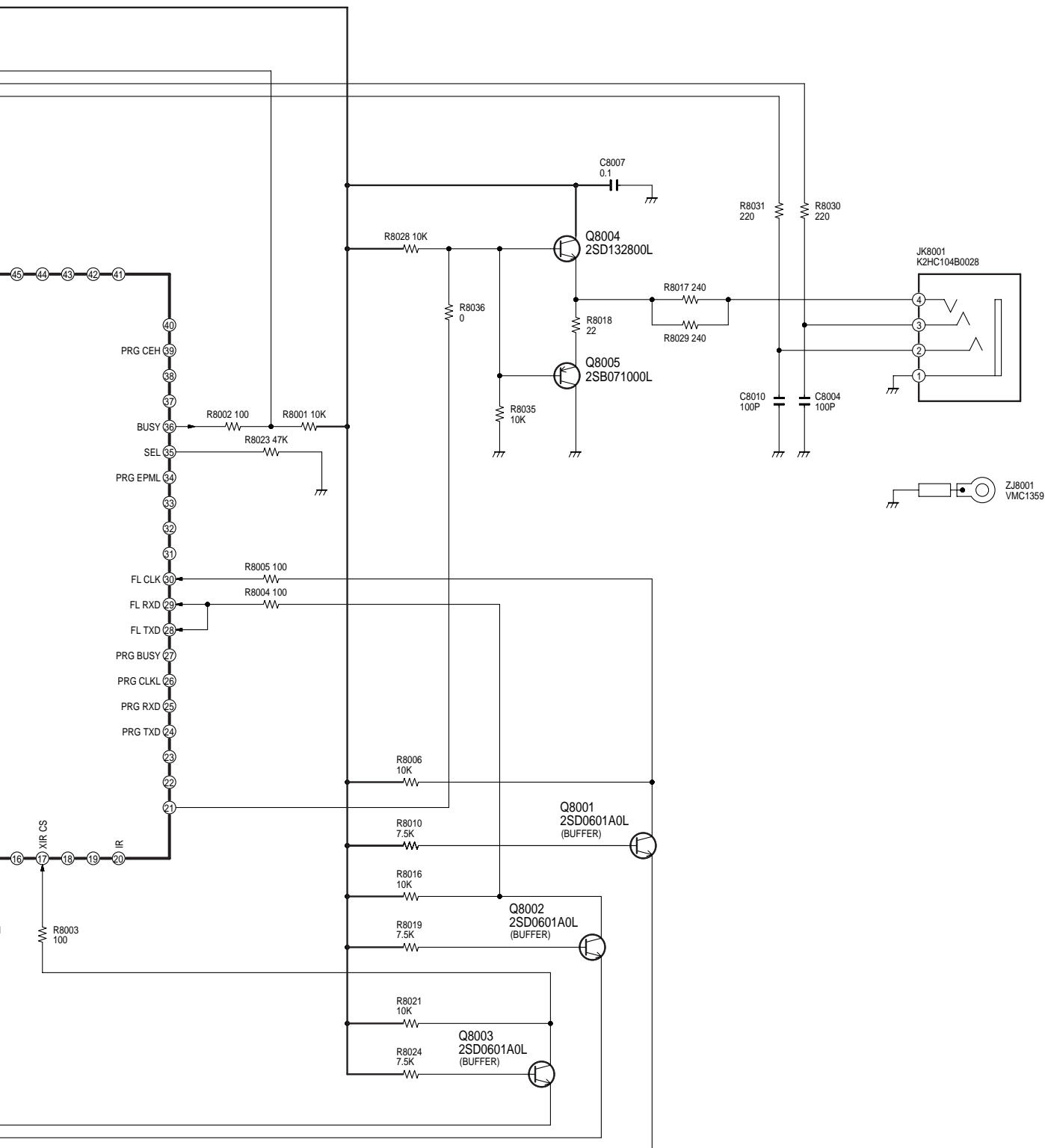


DMR-E85HP/PC  
 Audio I/O Section(Digital P.C.B.(5/5))  
 Schematic Diagram(AI)

NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN  
 MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

19.13. IR Schematic Diagram





DMR-E85HP/PC  
IR Schematic Diagram

6

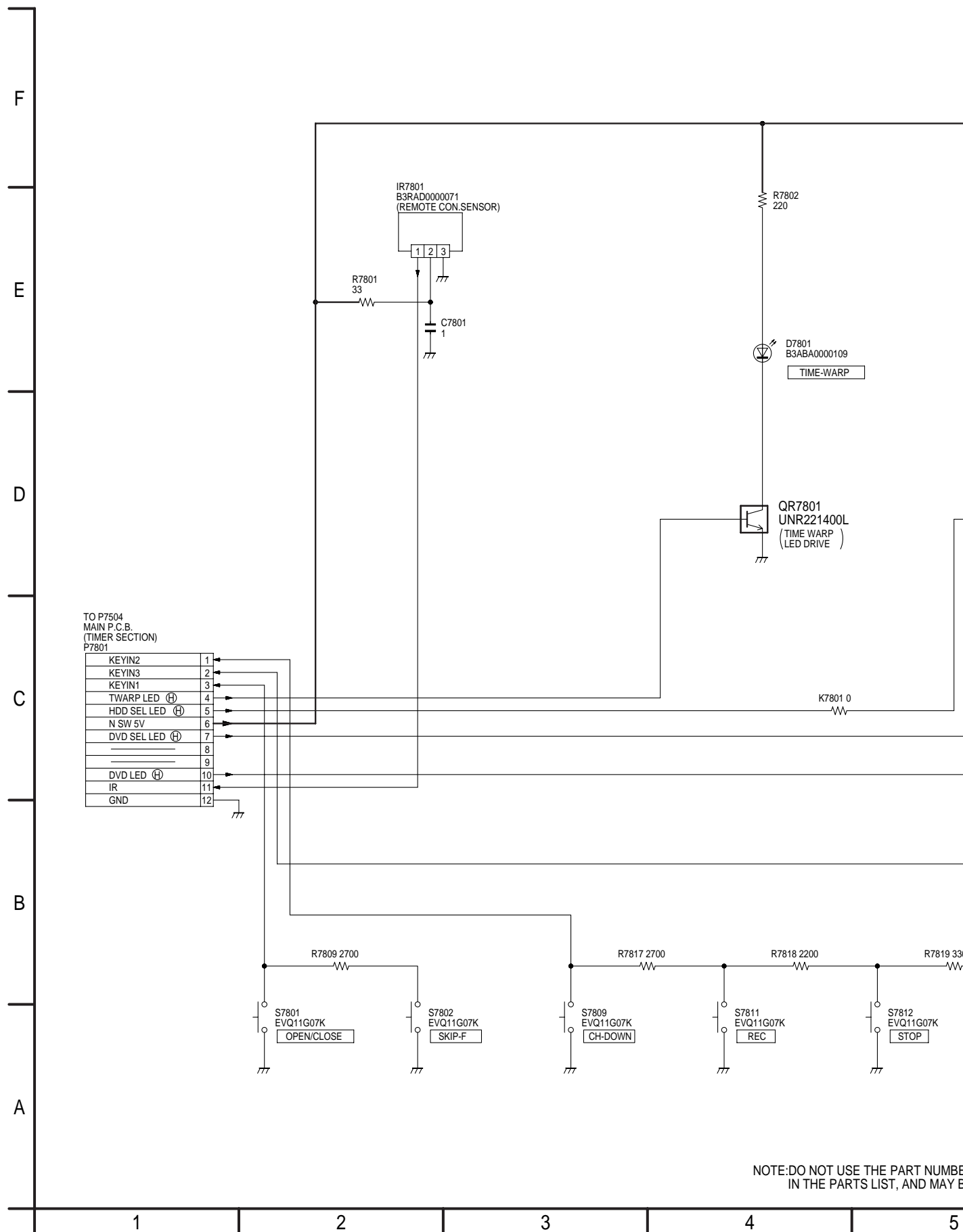
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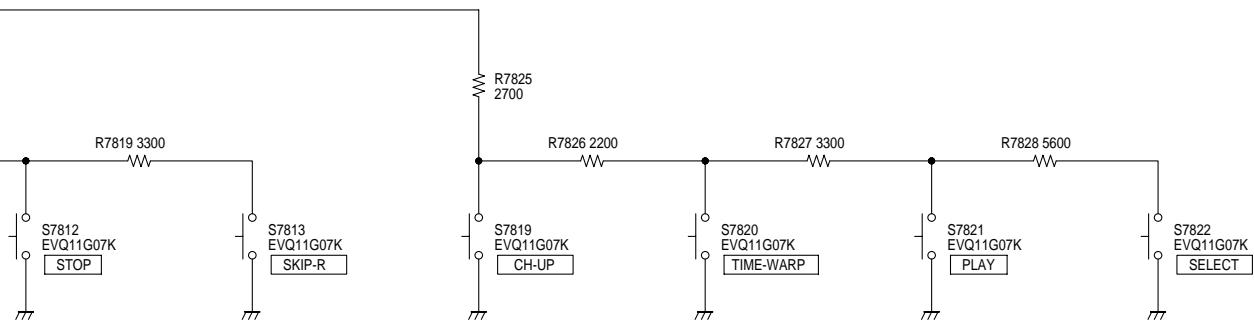
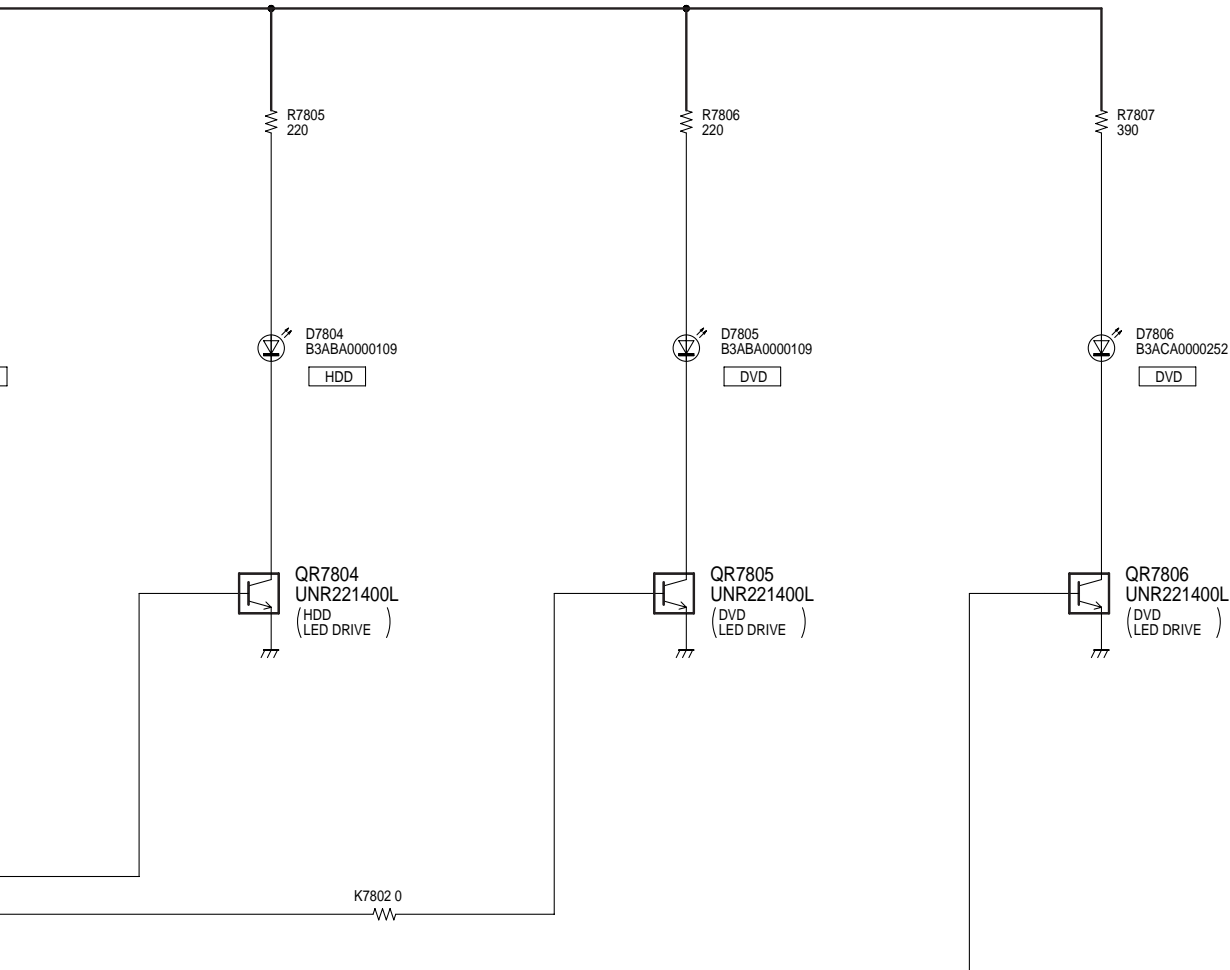
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# 19.14. Front (R) Schematic Diagram





THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN  
S LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Front(R)  
Schematic Diagram

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IC Pin Terminal Chart ( TC 1 - TC 8 )

TC	IC3404 / AVENC		SIGNAL NAME	IC3402 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
1	ARDQ0	334	MADQB0	2	DQ0
	ARDQ1	335	MADQB1	3	DQ1
	ARDQ2	336	MADQB2	5	DQ2
	ARDQ3	2	MADQB3	6	DQ3
	ARDQ4	4	MADQB4	8	DQ4
	ARDQ5	5	MADQB5	9	DQ5
	ARDQ6	7	MADQB6	11	DQ6
	ARDQ7	9	MADQB7	12	DQ7
	ARDQ8	16	MADQB8	39	DQ8
	ARDQ9	17	MADQB9	40	DQ9
	ARDQ10	19	MADQB10	42	DQ10
	ARDQ11	20	MADQB11	43	DQ11
	ARDQ12	22	MADQB12	45	DQ12
	ARDQ13	23	MADQB13	46	DQ13
	ARDQ14	25	MADQB14	48	DQ14
	ARDQ15	26	MADQB15	49	DQ15
	ARA0	28	MAB0	21	A0
	ARA1	29	MAB1	22	A1
	ARA2	31	MAB2	23	A2
	ARA3	32	MAB3	24	A3
	ARA4	34	MAB4	27	A4
	ARA5	35	MAB5	28	A5
	ARA6	37	MAB6	29	A6
	ARA7	38	MAB7	30	A7
	ARA8	41	MAB8	31	A8
	ARA9	42	MAB9	32	A9
	ARA10	44	MAB10	20	A10
	ARA11	45	BAOS D	19	A11

TC	IC3404 / AV ENC		SIGNAL NAME	IC3408 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
	MDQ0	88	MDQA0	2	DQ0
	MDQ1	89	MDQA1	4	DQ1
	MDQ2	91	MDQA2	5	DQ2
	MDQ3	92	MDQA3	7	DQ3
	MDQ4	93	MDQA4	8	DQ4
	MDQ5	95	MDQA5	10	DQ5
	MDQ6	96	MDQA6	11	DQ6
	MDQ7	97	MDQA7	13	DQ7
	MDQ8	99	MDQA8	74	DQ8
	MDQ9	100	MDQA9	76	DQ9
	MDQ10	101	MDQA10	77	DQ10
	MDQ11	103	MDQA11	79	DQ11
	MDQ12	104	MDQA12	80	DQ12
	MDQ13	105	MDQA13	82	DQ13
	MDQ14	108	MDQA14	83	DQ14
	MDQ15	109	MDQA15	85	DQ15
	MDQ16	115	MDQA16	31	DQ16
	MDQ17	116	MDQA17	33	DQ17
	MDQ18	118	MDQA18	34	DQ18
	MDQ19	119	MDQA19	36	DQ19
	MDQ20	120	MDQA20	37	DQ20
	MDQ21	122	MDQA21	39	DQ21
	MDQ22	123	MDQA22	40	DQ22
	MDQ23	124	MDQA23	42	DQ23
	MDQ24	127	MDQA24	45	DQ24
	MDQ25	128	MDQA25	47	DQ25
	MDQ26	129	MDQA26	48	DQ26
	MDQ27	131	MDQA27	50	DQ27
	MDQ28	132	MDQA28	51	DQ28
	MDQ29	133	MDQA29	53	DQ29
	MDQ30	135	MDQA30	54	DQ30
	MDQ31	136	MDQA31	56	DQ31
2	MA0	147	MAA0	25	A0
	MA1	148	MAA1	26	A1
	MA2	149	MAA2	27	A2
	MA3	152	MAA3	60	A3
	MA4	153	MAA4	61	A4
	MA5	154	MAA5	62	A5
	MA6	156	MAA6	63	A6
	MA7	157	MAA7	64	A7
	MA8	158	MAA8	65	A8
	MA9	160	MAA9	66	A9
	MA10	161	MAA10	24	A10

TC	IC3501 / RTSC		SIGNAL NAME	FP3501 (TO DVD RAM&HDD	
	Port Name	Pin No		Pin No	Port Name
3	IHDD0	251	RAMD0	24	DD0
	IHDD1	250	RAMD1	26	DD1
	IHDD2	249	RAMD2	28	DD2
	IHDD3	248	RAMD3	30	DD3
	IHDD4	246	RAMD4	32	DD4
	IHDD5	245	RAMD5	34	DD5
	IHDD6	244	RAMD6	36	DD6
	IHDD7	243	RAMD7	38	DD7
	IHDD8	239	RAMD8	37	DD8
	IHDD9	238	RAMD9	35	DD9
	IHDD10	237	RAMD10	33	DD10
	IHDD11	236	RAMD11	31	DD11
	IHDD12	235	RAMD12	29	DD12
	IHDD13	233	RAMD13	27	DD13
	IHDD14	232	RAMD14	25	DD14
	IHDD15	231	RAMD15	23	DD15

TC	IC3404 / AVENC		SIGNAL NAME	IC6001 / AV DEC&MAIN CPU	
	Port Name	Pin No		Pin No	Port Name
4	R656OUT0	296	R656ENC0	278	VDIN0
	R656OUT1	297	R656ENC1	277	VDIN1
	R656OUT2	298	R656ENC2	272	VDIN2
	R656OUT3	299	R656ENC3	271	VDIN3
	R656OUT4	301	R656ENC4	270	VDIN4
	R656OUT5	302	R656ENC5	269	VDIN5
	R656OUT6	303	R656ENC6	268	VDIN6
	R656OUT7	304	R656ENC7	266	VDIN7

TC	IC6001/AV DEC&MAIN CPU		SIGNAL NAME	IC3404 / AVENC	
	Port Name	Pin No		Pin No	Port Name
5	VDOU0	289	R656DEC0	283	R656IN0
	VDOU1	288	R656DEC1	284	R656IN1
	VDOU2	286	R656DEC2	285	R656IN2
	VDOU3	285	R656DEC3	286	R656IN3
	VDOU4	284	R656DEC4	288	R656IN4
	VDOU5	283	R656DEC5	289	R656IN5
	VDOU6	282	R656DEC6	290	R656IN6
	VDOU7	281	R656DEC7	291	R656IN7

TC	IC3501 / RTSC		SIGNAL NAME	IC6001/AV DEC&MAIN CPU	
	Port Name	Pin No		Pin No	Port Name
6	B3DATA0	46	STD0	251	STD0
	B3DATA1	47	STD1	250	STD1
	B3DATA2	48	STD2	249	STD2
	B3DATA3	49	STD3	248	STD3
	B3DATA4	53	STD4	247	STD4
	B3DATA5	54	STD5	245	STD5
	B3DATA6	55	STD6	244	STD6
	B3DATA7	56	STD7	243	STD7

TC	IC3404 / AVENC		SIGNAL NAME	IC3501 / RTSC	
	Port Name	Pin No		Pin No	Port Name
7	CD0	229	ED0	27	B2DATA0
	CD1	230	ED1	28	B2DATA1
	CD2	231	ED2	30	B2DATA2
	CD3	233	ED3	31	B2DATA3
	CD4	234	ED4	33	B2DATA4
	CD5	235	ED5	34	B2DATA5
	CD6	238	ED6	36	B2DATA6
	CD7	239	ED7	37	B2DATA7

TC	IC6701 / GLUE		SIGNAL NAME	IC6703 / DATA STRAGE	
	Port Name	Pin No		Pin No	Port Name
8	ECCD0	67	DE0	29	D0
	ECCD1	70	DE1	30	D1
	ECCD2	69	DE2	31	D2
	ECCD3	68	DE3	32	D3
	ECCD4	71	DE4	41	D4
	ECCD5	74	DE5	42	D5
	ECCD6	73	DE6	43	D6
	ECCD7	72	DE7	44	D7

IC Pin Terminal Chart ( TC9 - TC12 )

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC50001 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
9	MDQM0	343	DQ0	2	DQ0
	MDQM1	346	DQ1	4	DQ1
	MDQM2	348	DQ2	5	DQ2
	MDQM3	350	DQ3	7	DQ3
	MDQM4	353	DQ4	8	DQ4
	MDQM5	355	DQ5	10	DQ5
	MDQM6	358	DQ6	11	DQ6
	MDQM7	360	DQ7	13	DQ7
	MDQM8	359	DQ8	42	DQ8
	MDQM9	356	DQ9	44	DQ9
	MDQM10	354	DQ10	45	DQ10
	MDQM11	352	DQ11	47	DQ11
	MDQM12	349	DQ12	48	DQ12
	MDQM13	347	DQ13	50	DQ13
	MDQM14	344	DQ14	51	DQ14
	MDQM15	342	DQ15	53	DQ15
	MAM0	317	A0	23	A0
	MAM1	320	A1	24	A1
	MAM2	322	A2	25	A2
	MAM3	328	A3	26	A3
	MAM4	330	A4	29	A4
	MAM5	332	A5	30	A5
	MAM6	331	A6	31	A6
	MAM7	329	A7	32	A7
	MAM8	323	A8	33	A8
	MAM9	321	A9	34	A9
	MAM10	318	A10	22	A10
	MAM11	316	A11	35	A11

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC50002 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
10	MDQM16	292	DQ16	2	DQ0
	MDQM17	295	DQ17	4	DQ1
	MDQM18	297	DQ18	5	DQ2
	MDQM19	299	DQ19	7	DQ3
	MDQM20	302	DQ20	8	DQ4
	MDQM21	304	DQ21	10	DQ5
	MDQM22	308	DQ22	11	DQ6
	MDQM23	310	DQ23	13	DQ7
	MDQM24	309	DQ24	42	DQ8
	MDQM25	305	DQ25	44	DQ9
	MDQM26	303	DQ26	45	DQ10
	MDQM27	301	DQ27	47	DQ11
	MDQM28	298	DQ28	48	DQ12
	MDQM29	296	DQ29	50	DQ13
	MDQM30	293	DQ30	51	DQ14
	MDQM31	291	DQ31	53	DQ15
	MAM0	317	A0	23	A0
	MAM1	320	A1	24	A1
	MAM2	322	A2	25	A2
	MAM3	328	A3	26	A3
	MAM4	330	A4	29	A4
	MAM5	332	A5	30	A5
	MAM6	331	A6	31	A6
	MAM7	329	A7	32	A7
	MAM8	323	A8	33	A8
	MAM9	321	A9	34	A9
	MAM10	318	A10	22	A10
	MAM11	316	A11	35	A11

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC6005,IC6006 / W-MEMORY	
	Port Name	Pin No		Pin No	Port Name
11	MD0	118	MD0	2	DQ0
	MD1	121	MD1	4	DQ1
	MD2	123	MD2	5	DQ2
	MD3	125	MD3	7	DQ3
	MD4	128	MD4	8	DQ4
	MD5	130	MD5	10	DQ5
	MD6	133	MD6	11	DQ6
	MD7	135	MD7	13	DQ7
	MD8	134	MD8	42	DQ8
	MD9	131	MD9	44	DQ9
	MD10	129	MD10	45	DQ10
	MD11	127	MD11	47	DQ11
	MD12	124	MD12	48	DQ12
	MD13	122	MD13	50	DQ13
	MD14	119	MD14	51	DQ14
	MD15	117	MD15	53	DQ15
	MA0	160	MA0	23	A0
	MA1	163	MA1	24	A1
	MA2	165	MA2	25	A2
	MA3	167	MA3	26	A3
	MA4	166	MA4	29	A4
	MA5	164	MA5	30	A5
	MA6	161	MA6	31	A6
	MA7	159	MA7	32	A7
	MA8	156	MA8	33	A8
	MA9	153	MA9	34	A9
	MA10	157	MA10	22	A10
	MA11	151	MA11	35	A11
MA12	147	MA12	36	NC	
MA13	154	MA13	21	A12	
MA14	152	MA14	20	A13	



SA0 - SA25 ADDRESS BUS LINE (TC13, TC14-1, TC15-1, TC17, TC18-1, TC20)

TC	13		14-1		15-1		17		18-1		20	
SIGNAL NAME	IC3404 / AVENC		IC6701 / GLUE		IC6001 / AVDEC&MAIN CPU		IC6004 / BUFFER		IC6003 / LOADER		IC3501 / RTSC	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SA0	-	-	-	-	28	SA0	-	-	-	-	-	-
SA1	-	-	-	-	27	SA1	2	1A1	25	A0	-	-
SA2	-	-	-	-	26	SA2	4	1A2	24	A1	-	-
SA3	-	-	-	-	25	SA3	6	1A3	23	A2	-	-
SA4	-	-	-	-	24	SA4	8	1A4	22	A3	-	-
SA5	186	HA4	163	ADRL5	22	SA5	-	-	21	A4	75	HADR5
SA6	187	HA5	170	ADRL6	20	SA6	-	-	20	A5	76	HADR6
SA7	188	HA6	168	ADRL7	19	SA7	-	-	19	A6	77	HADR7
SA8	189	HA7	-	-	18	SA8	-	-	18	A7	78	HADR8
SA9	191	HA8	-	-	17	SA9	-	-	8	A8	79	HADR9
SA10	192	HA9	-	-	16	SA10	-	-	7	A9	80	HADR10
SA11	194	HA10	-	-	15	SA11	-	-	6	A10	81	HADR11
SA12	195	HA11	-	-	14	SA12	-	-	5	A11	82	HADR12
SA13	-	-	-	-	12	SA13	-	-	4	A12	85	HADR13
SA14	-	-	-	-	11	SA14	-	-	3	A13	86	HADR14
SA15	-	-	-	-	10	SA15	-	-	2	A14	87	HADR15
SA16	-	-	-	-	9	SA16	-	-	1	A15	89	HADR16
SA17	-	-	-	-	8	SA17	-	-	48	A16	90	HADR17
SA18	-	-	-	-	7	SA18	-	-	17	A17	92	HADR18
SA19	-	-	-	-	6	SA19	-	-	16	A18	93	HADR19
SA20	-	-	-	-	3	SA20	-	-	-	-	94	HADR20
SA21	-	-	-	-	2	SA21	-	-	-	-	95	HADR21
SA22	-	-	174	ADR22	1	SA22	-	-	-	-	-	-
SA23	-	-	171	ADRH0	363	SA23	-	-	-	-	-	-
SA24	-	-	172	ADRH1	362	SA24	-	-	-	-	-	-
SA25	-	-	173	ADRH2	361	SA25	-	-	-	-	-	-

SD16 - SD31 DATA BUS LINE (TC14-2, TC15-2, TC18-2 )

TC	14-2		15-2		18-2	
SIGNAL NAME	IC6701 / GLUE		IC6001 / AVDEC&MAIN CPU		IC6003 / LOADER	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SD16	201	LDTI0	67	SD16	29	I/O0
SD17	200	LDTI1	66	SD17	31	I/O1
SD18	199	LDTI2	65	SD18	33	I/O2
SD19	202	LDTI3	64	SD19	35	I/O3
SD20	197	LDTI4	63	SD20	38	I/O4
SD21	196	LDTI5	62	SD21	40	I/O5
SD22	198	LDTI6	61	SD22	42	I/O6
SD23	195	LDTI7	59	SD23	44	I/O7
SD24	194	LDTI8	58	SD24	30	I/O8
SD25	192	LDTI9	57	SD25	32	I/O9
SD26	191	LDTI10	56	SD26	34	I/O10
SD27	189	LDTI11	55	SD27	36	I/O11
SD28	190	LDTI12	54	SD28	39	I/O12
SD29	188	LDTI13	53	SD29	41	I/O13
SD30	187	LDTI14	51	SD30	43	I/O14
SD31	185	LDTI15	50	SD31	45	I/O15

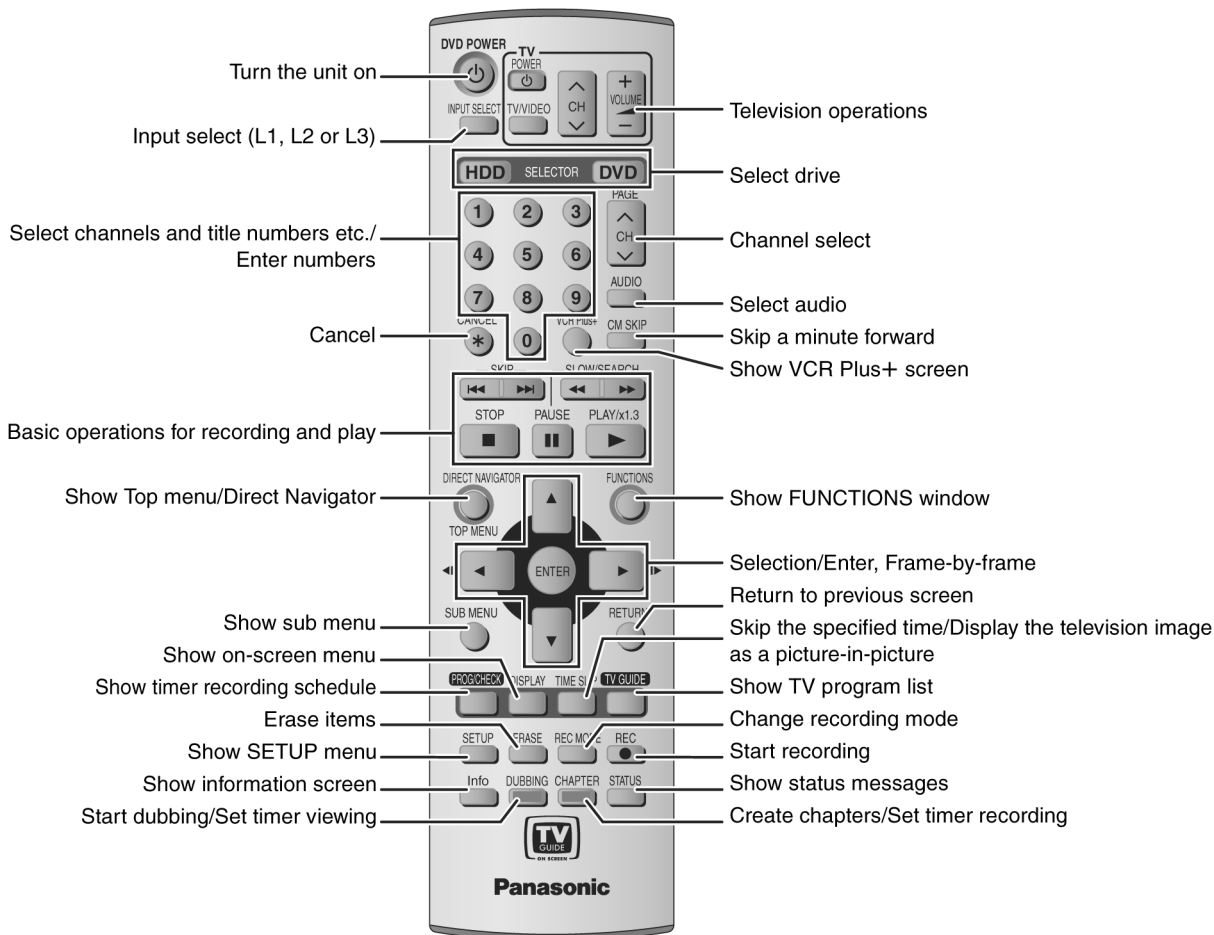
MSD16 - MSD31 DATA BUS LINE (TC19-1, TC21-1,TC22-1 )

TC	19-1		21-1		22-1	
SIGNAL NAME	IC3404 / AVENC&RTSC		IC3501 / RTSC		IC6701 / GLUE	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSD16	203	HD0	118	HDAT0	12	LDEV0
MSD17	204	HD1	117	HDAT1	13	LDEV1
MSD18	206	HD2	115	HDAT2	11	LDEV2
MSD19	207	HD3	114	HDAT3	10	LDEV3
MSD20	209	HD4	113	HDAT4	7	LDEV4
MSD21	210	HD5	111	HDAT5	8	LDEV5
MSD22	212	HD6	110	HDAT6	9	LDEV6
MSD23	213	HD7	109	HDAT7	14	LDEV7
MSD24	215	HD8	107	HDAT8	2	LDEV8
MSD25	216	HD9	106	HDAT9	4	LDEV9
MSD26	217	HD10	104	HDAT10	3	LDEV10
MSD27	218	HD11	102	HDAT11	208	LDEV11
MSD28	220	HD12	101	HDAT12	207	LDEV12
MSD29	221	HD13	100	HDAT13	6	LDEV13
MSD30	223	HD14	98	HDAT14	205	LDEV14
MSD31	224	HD15	97	HDAT15	203	LDEV15

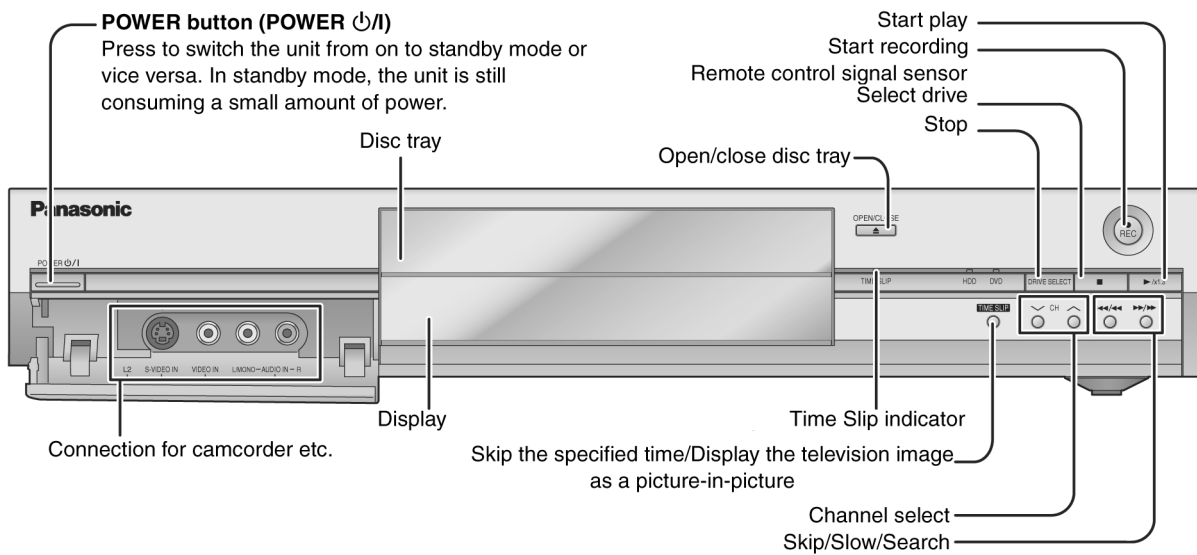
MSA1 - MSA4 ADDRESS BUS LINE (TC16, TC19-2, TC21-2, TC22-2 )

TC	16		19-2		21-2		22-2	
SIGNAL NAME	IC6004/BUFFER		IC3404/AVENC		IC3501/RTSC		IC6701/GLUE	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSA1	18	1Y1	181	HA0	68	HADR1	167	ADRL1
MSA2	16	1Y2	182	HA1	69	HADR2	164	ADRL2
MSA3	14	1Y3	183	HA2	70	HADR3	165	ADRL3
MSA4	12	1Y4	184	HA3	71	HADR4	166	ADRL4

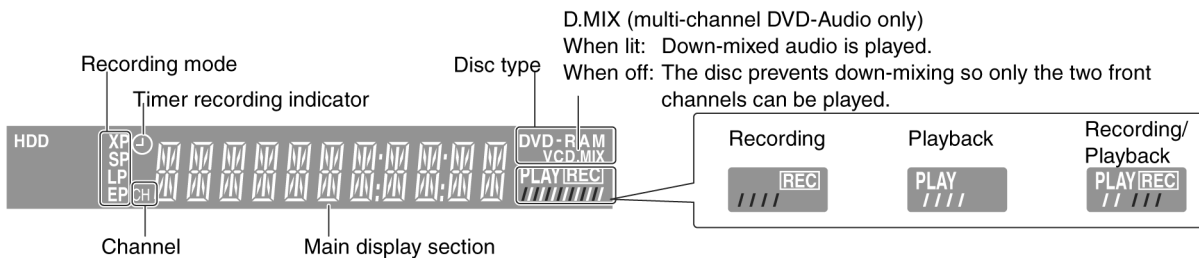
## Remote control

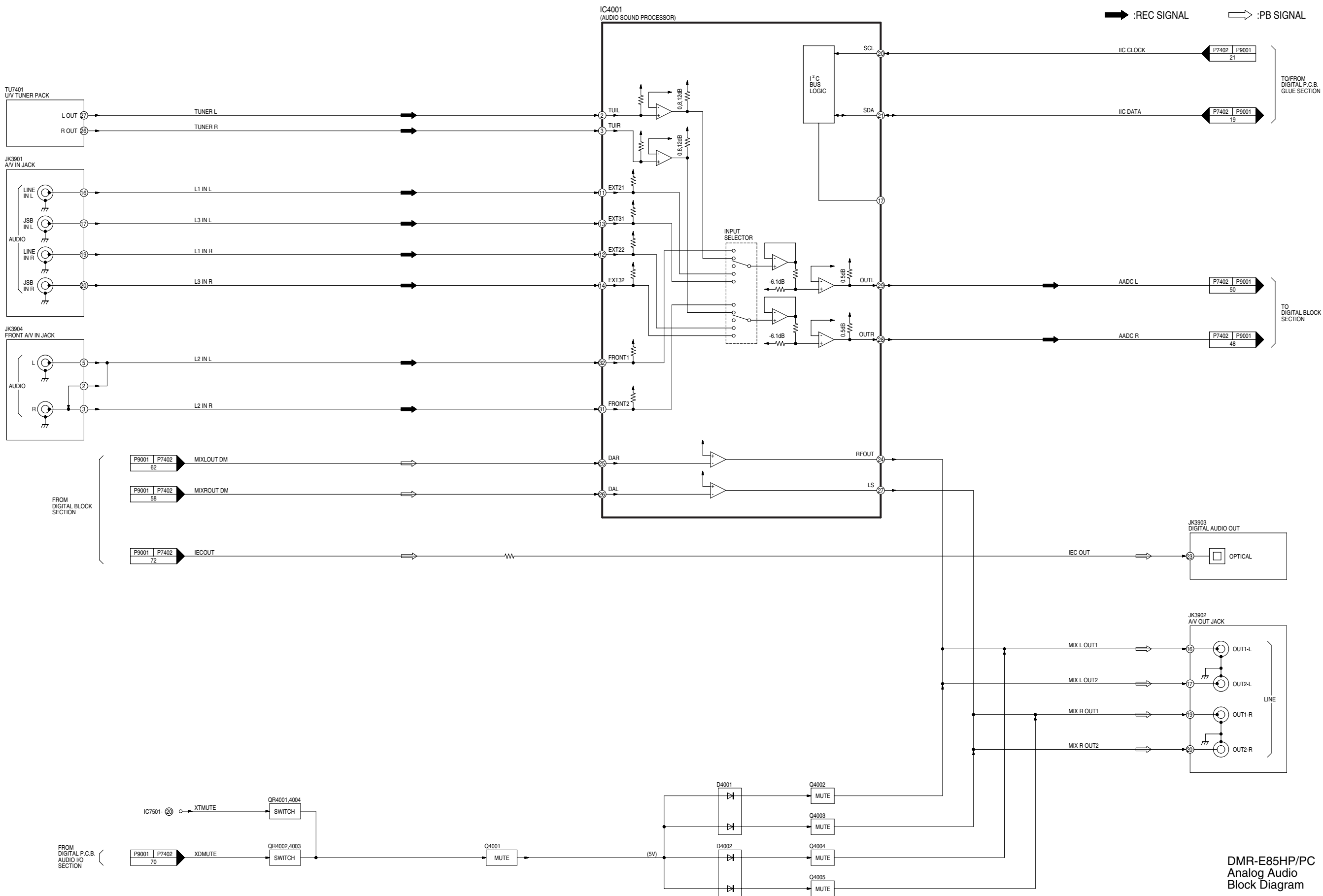


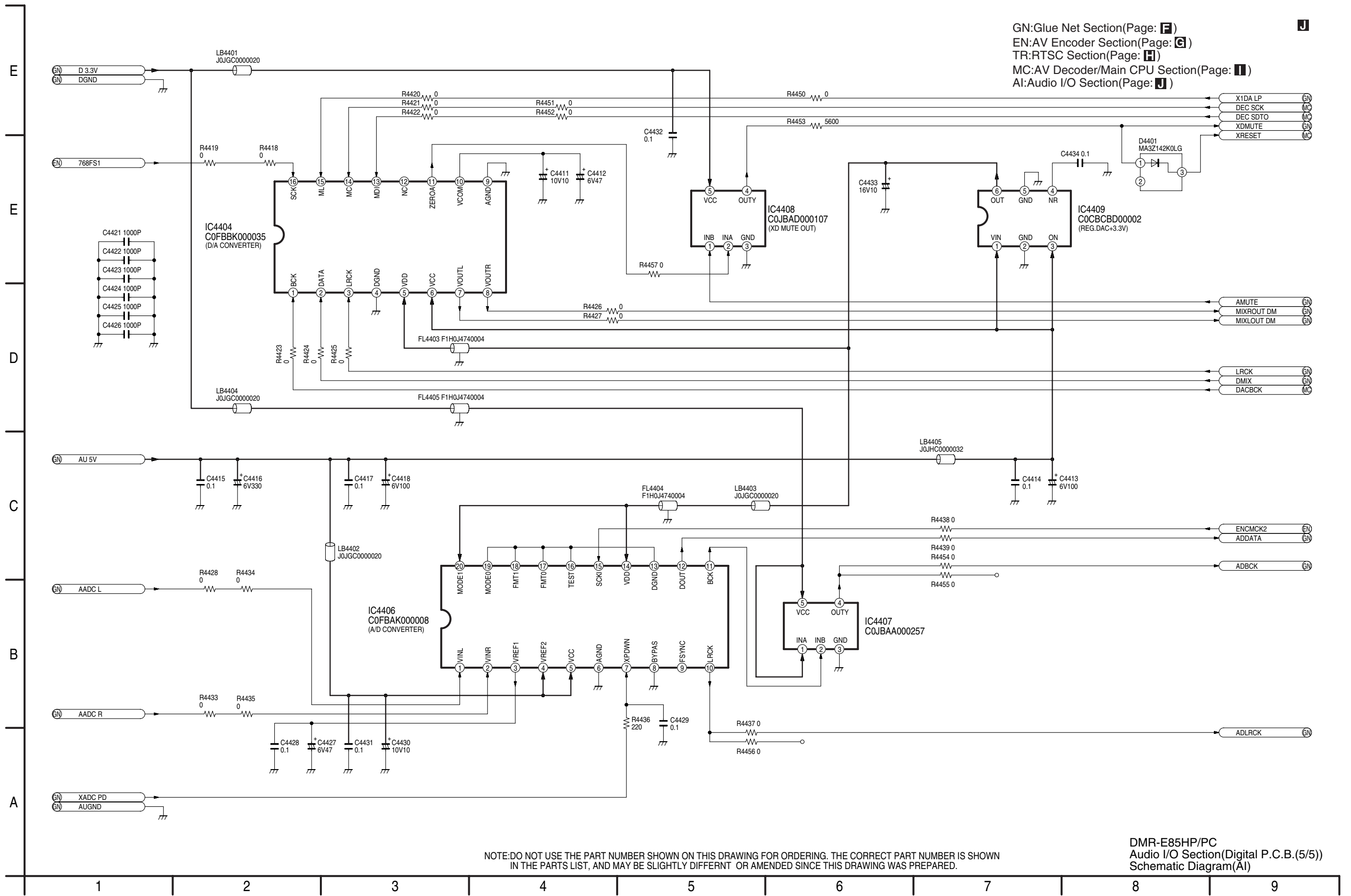
## Main unit



## The unit's display



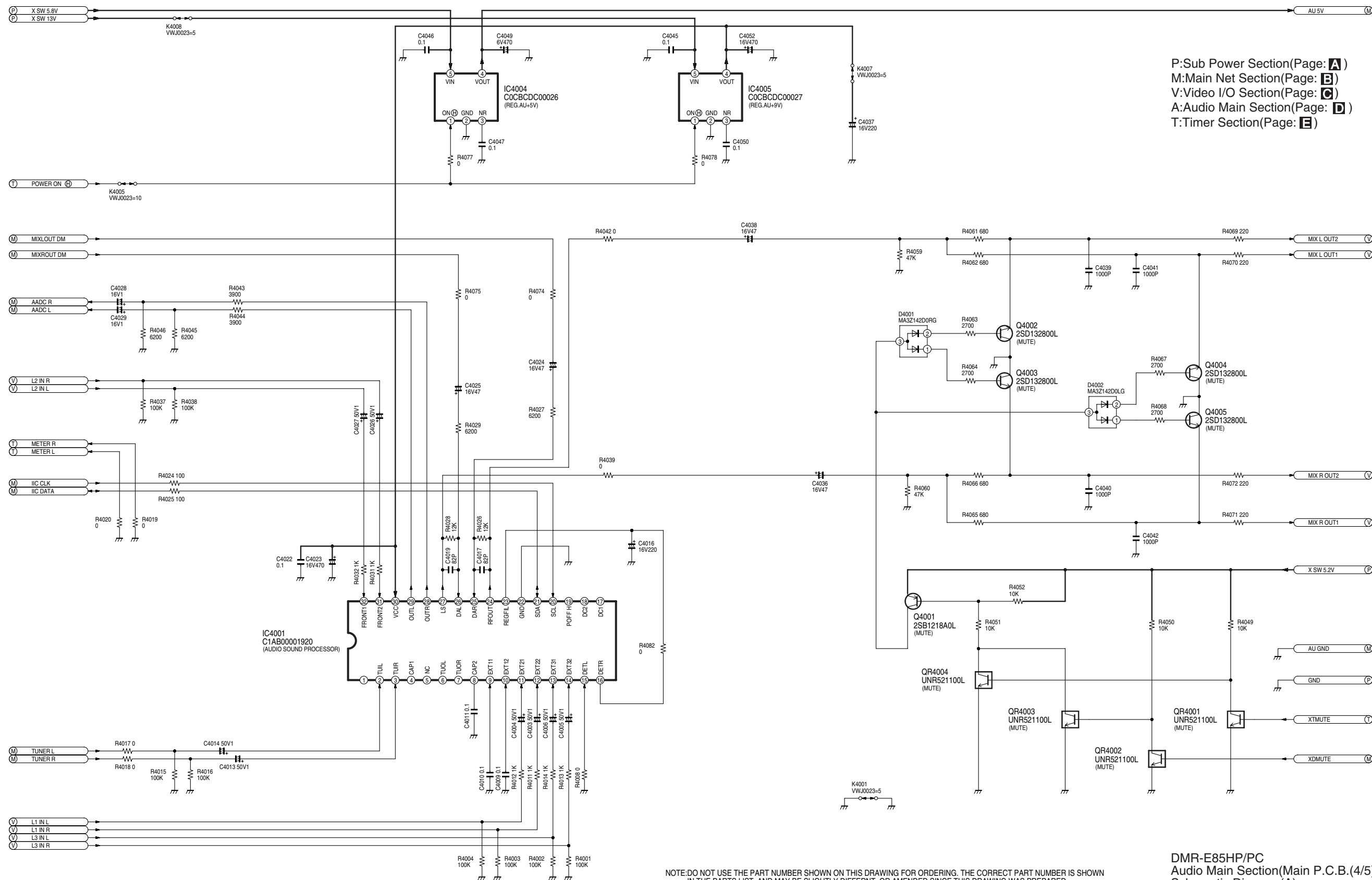


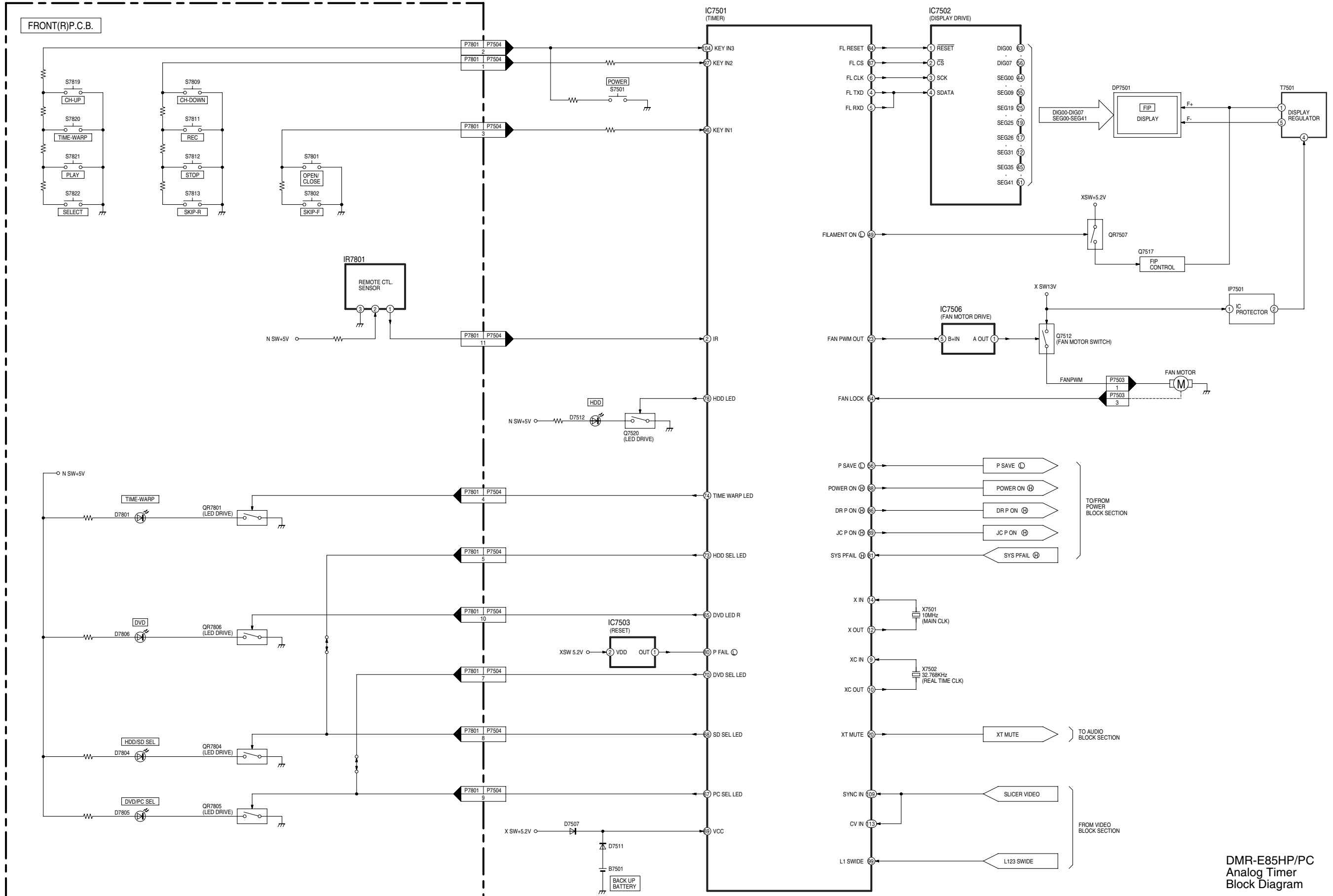


GN:Glue Net Section(Page: **F**)  
EN:AV Encoder Section(Page: **G**)  
TR:RTSC Section(Page: **H**)  
MC:AV Decoder/Main CPU Section(Page: **I**)  
AI:Audio I/O Section(Page: **J**)

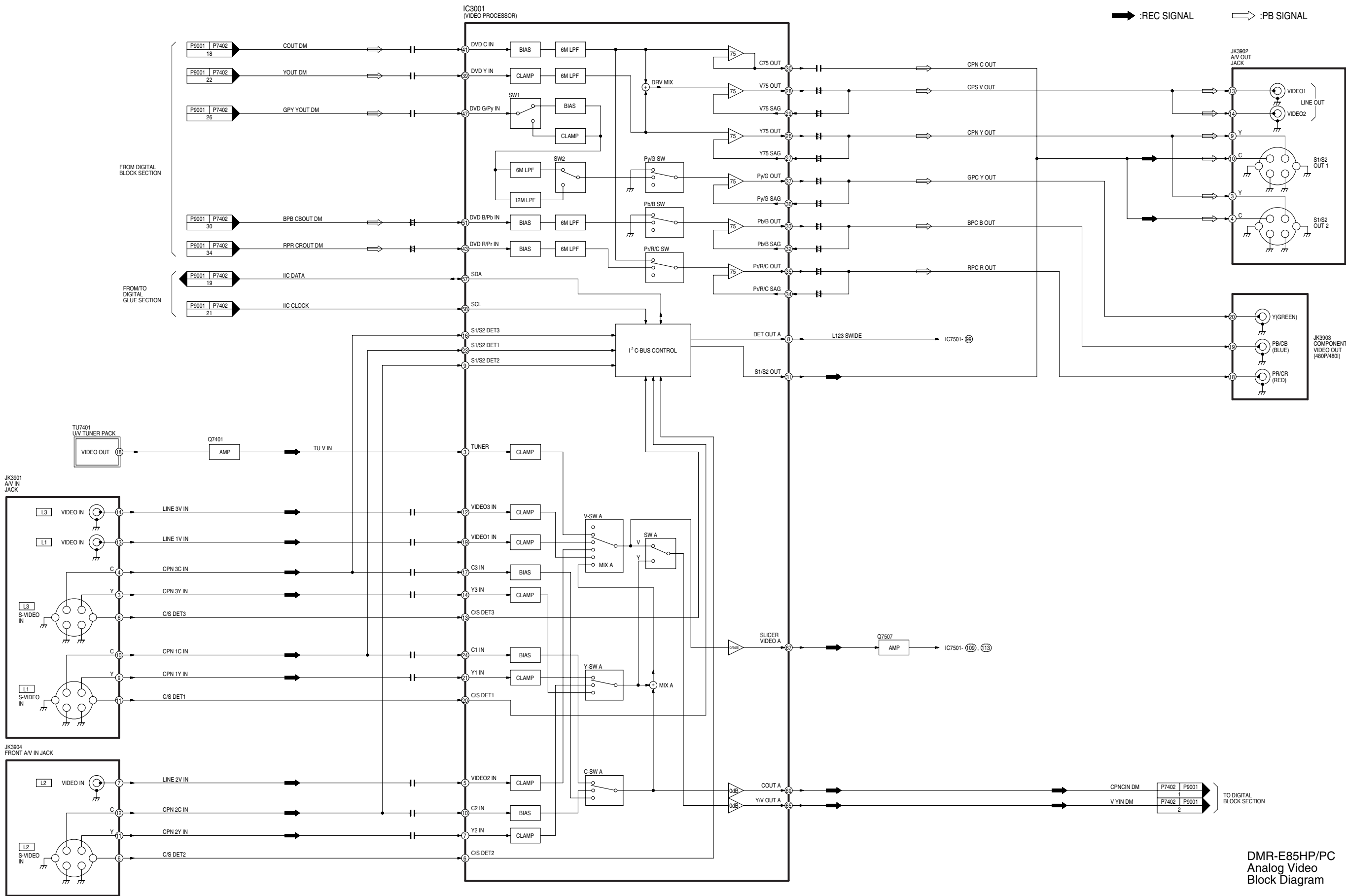
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Audio I/O Section(Digital P.C.B.(5/5))  
Schematic Diagram(AI)

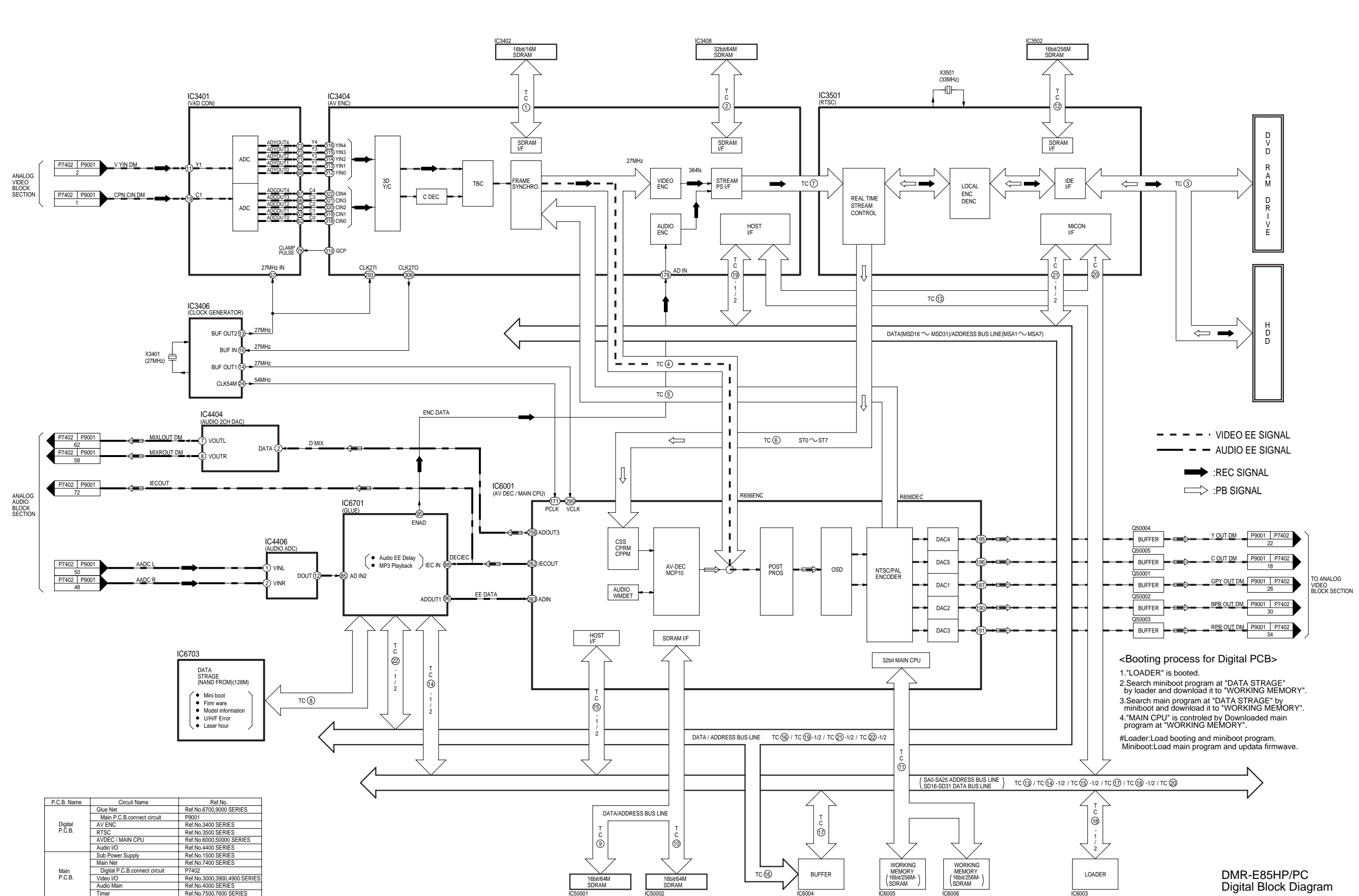




DMR-E85HP/PC  
Analog Timer  
Block Diagram



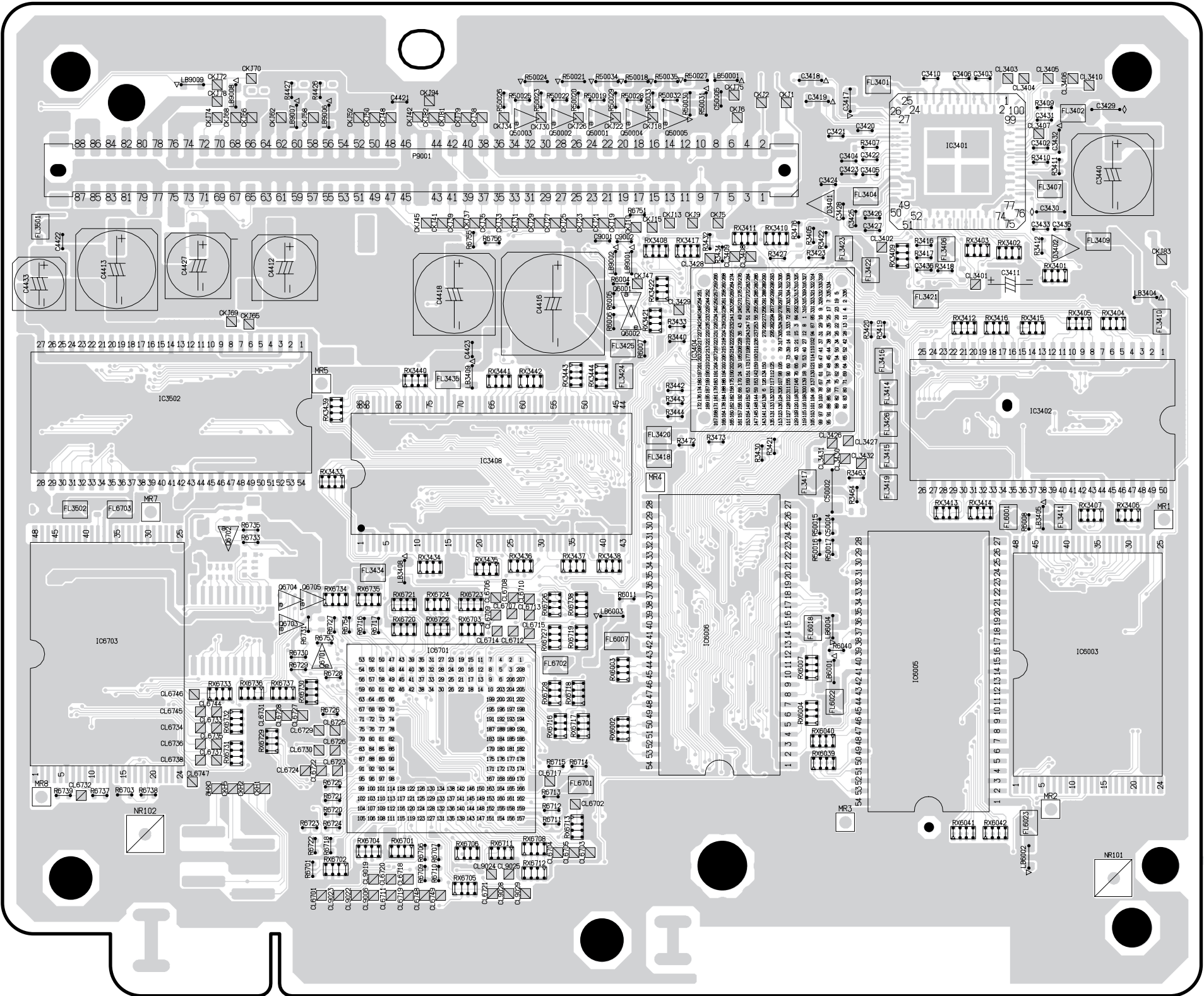
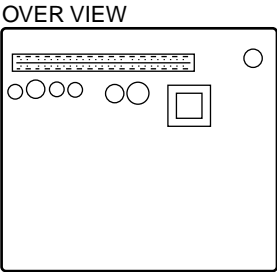
DMR-E85HP/PC  
Analog Video  
Block Diagram



P.C.B. Name	Circuit Name	Ref.No.
Digital P.C.B.	Glue Net	Ref.No.6700,9000 SERIES
	Main P.C.B.connect circuit	P9001
	AV ENC	Ref.No.3400 SERIES
	RTSC	Ref.No.3500 SERIES
	AVDEC / MAIN CPU	Ref.No.6000,50000 SERIES
	Audio I/O	Ref.No.4400 SERIES
Main P.C.B.	Sub Power Supply	Ref.No.1500 SERIES
	Main Net	Ref.No.7400 SERIES
	Digital P.C.B.connect circuit	P7402
	Video I/O	Ref.No.3000,3900,4900 SERIES
	Video Main	Ref.No.4000 SERIES
	Audio Main	Ref.No.4000 SERIES
	Timer	Ref.No.7500,7600 SERIES

DMR-E85HP/PC  
Digital Block Diagram



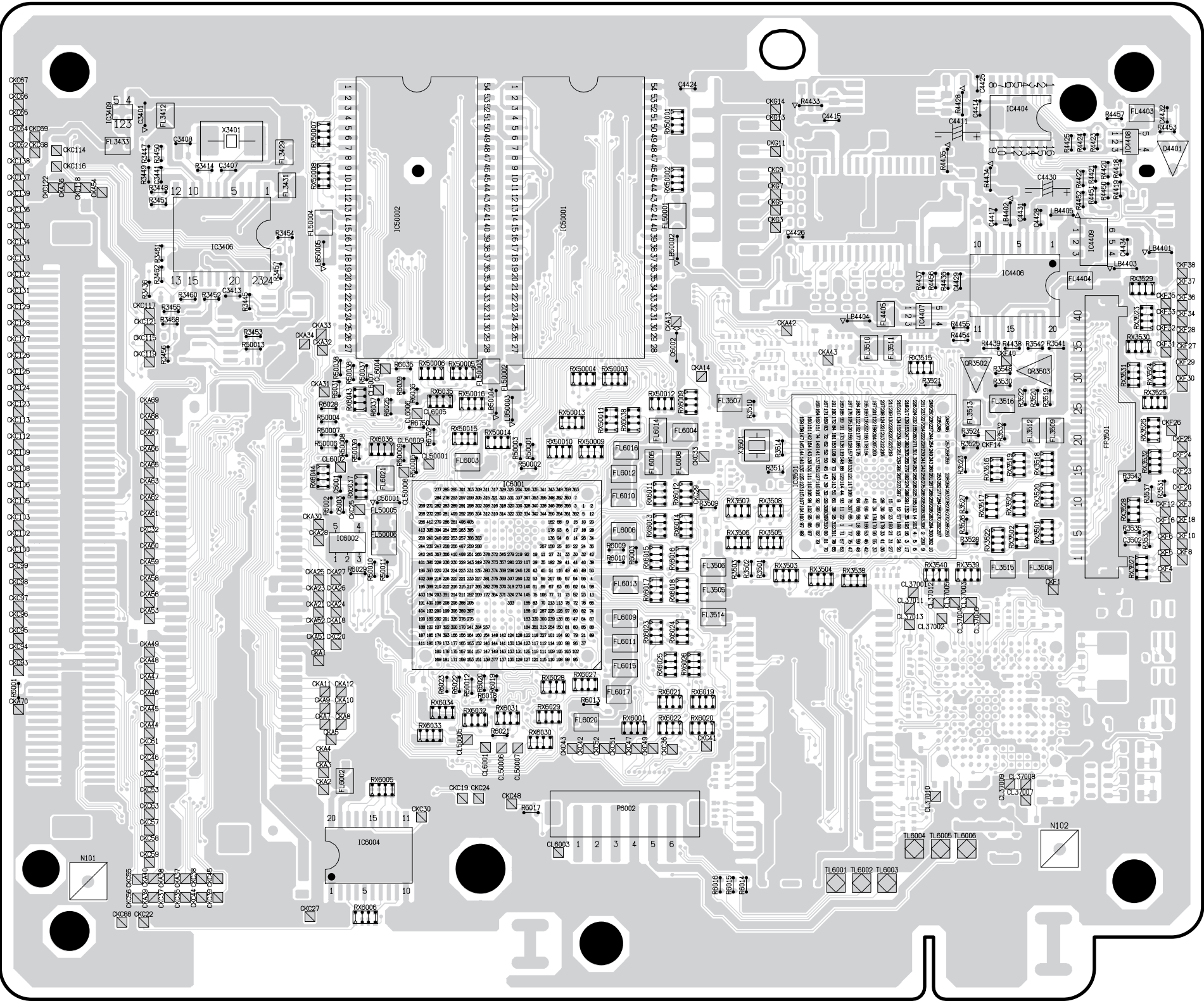
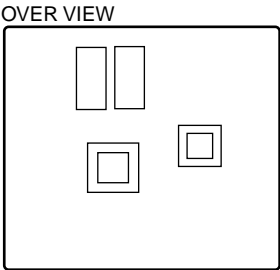


\*IC6703 is not supplied in the form of an individual part.  
When replacing, be sure to replace the Digital P.C.B. and not IC6703 singly.

(COMPONENT SIDE)

DMR-E85HP/PC  
Digital P.C.B. (Component Side)  
(E85HP: REP3774G, E85HPC: RFKBE85HPC)

DIGITAL P.C.B.



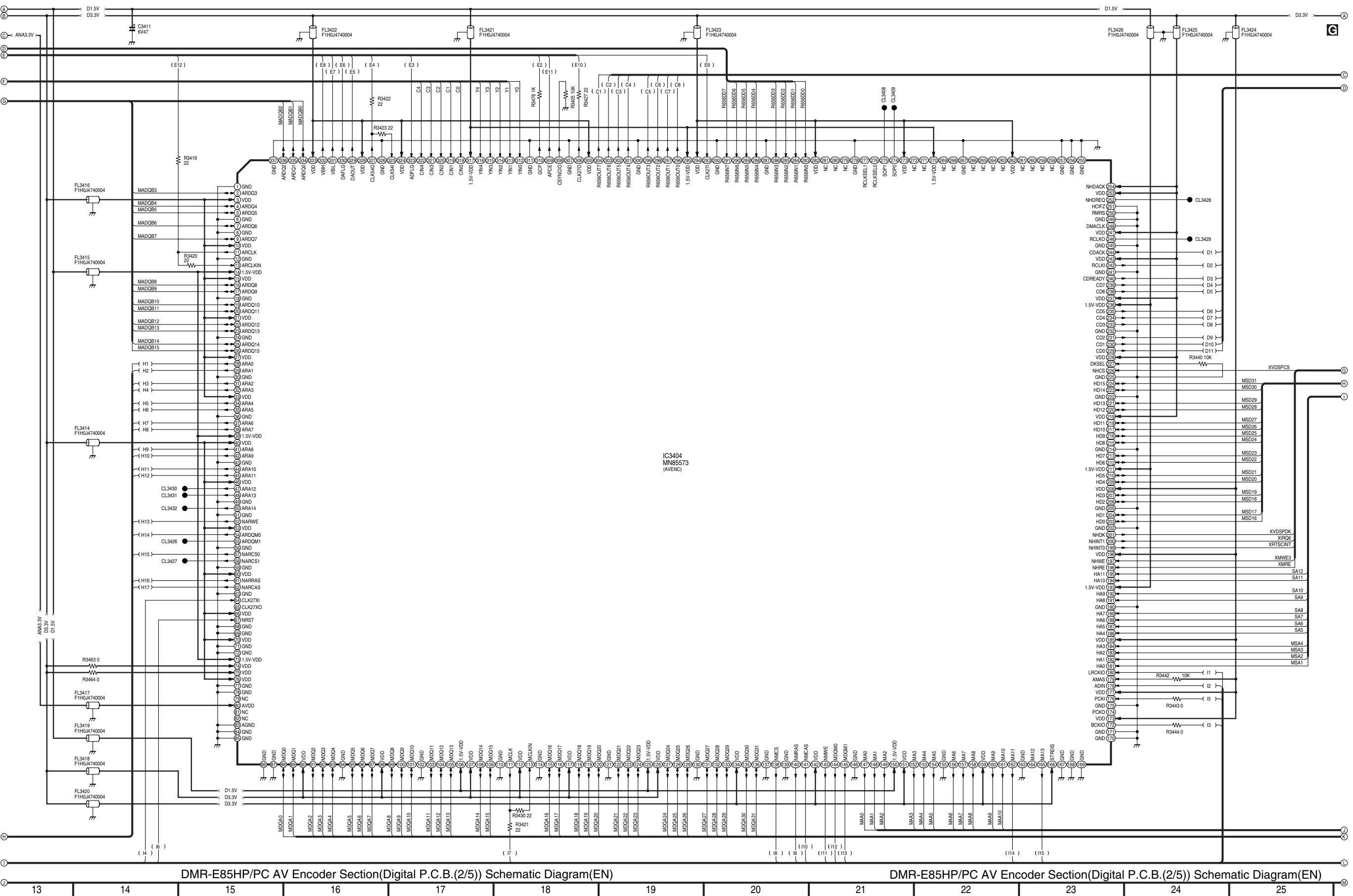
(FOIL SIDE)

DMR-E85HP/PC  
Digital P.C.B. (Foil Side)  
(E85HP: REP3774G, E85HPC: RFKBE85HPC)

DIGITAL P.C.B.																																			
Integrated Circuit			CKA49	C-2	F	CKC116	E-1	F	CKJ30	E-4	C	CL6726	B-3	C	LB9006	E-3	C	FL50001	E-4	F	R3417	E-6	C	R4436	E-6	F	R6755	E-3	C	RX3515	D-6	F	RX6721	C-3	C
IC3401	E-6	C	CKA51	C-2	F	CKC117	D-2	F	CKJ31	E-4	C	CL6727	B-2	C	LB9007	E-2	C	FL50002	D-3	F	R3418	D-5	C	R4437	E-6	F	R6756	E-3	C	RX3516	D-6	F	RX6722	C-3	C
IC3402	D-6	C	CKA52	C-2	F	CKC118	E-1	F	CKJ33	E-3	C	CL6728	B-2	C	LB9008	F-2	C	FL50003	D-3	F	R3419	D-5	C	R4438	D-6	F	R50001	D-4	F	RX3517	C-6	F	RX6723	C-3	C
IC3404	D-5	C	CKA53	C-2	F	CKC119	D-2	F	CKJ34	E-3	C	CL6729	B-2	C	LB9009	F-2	C	FL50004	E-2	F	R3420	D-5	C	R4439	D-6	F	R50002	D-4	F	RX3518	D-6	F	RX6724	C-3	C
IC3406	E-2	F	CKA54	E-1	F	CKC121	D-2	F	CKJ35	E-3	C	CL6730	B-2	C	LB50001	F-5	C	FL50005	C-3	F	R3421	D-5	C	R4450	E-7	F	R50003	D-4	F	RX3519	D-6	F	RX6726	C-4	C
IC3408	D-3	C	CKA56	C-2	F	CKC122	E-1	F	CKJ37	E-3	C	CL6731	B-2	C	LB50002	E-4	F	FL50006	C-3	F	R3422	E-5	C	R4451	E-7	F	R50004	D-3	F	RX3520	C-6	F	RX6727	C-4	C
IC3409	E-1	F	CKA58	C-2	F	CKC123	D-1	F	CKJ38	E-3	C	CL6732	B-1	C	LB50003	D-3	F	Capacitor			R3423	E-5	C	R4452	E-6	F	R50005	D-3	F	RX3521	C-6	F	RX6728	B-4	C
IC3501	D-5	F	CKA59	C-2	F	CKC124	D-1	F	CKJ39	E-3	C	CL6733	B-2	C	LB50004	D-3	F	C3401	E-2	F	R3427	E-5	C	R4453	E-7	F	R50006	D-3	F	RX3522	C-6	F	RX6729	B-2	C
IC3502	D-2	C	CKA60	C-2	F	CKC125	D-1	F	CKJ41	E-3	C	CL6734	B-2	C	LB50005	E-2	F	C3402	E-6	C	R3430	D-5	C	R4454	D-6	F	R50007	D-3	F	RX3523	D-7	F	RX6730	B-2	C
IC4404	E-6	F	CKA61	C-2	F	CKC126	D-1	F	CKJ42	E-3	C	CL6735	B-2	C	Filter			C3403	F-6	C	R3432	E-5	C	R4455	D-6	F	R50008	D-3	F	RX3524	D-7	F	RX6731	B-2	C
IC4406	E-6	F	CKA62	C-2	F	CKC127	D-1	F	CKJ45	E-3	C	CL6736	B-2	C	FL3401	F-5	C	C3404	E-5	C	R3433	D-4	C	R4456	E-6	F	R50009	D-3	F	RX3525	D-7	F	RX6732	B-2	C
IC4407	D-6	F	CKA63	C-2	F	CKC128	D-1	F	CKJ47	E-4	C	CL6737	B-2	C	FL3402	E-6	C	C3405	E-5	C	R3434	E-5	C	R4457	E-7	F	R50010	C-3	F	RX3526	D-7	F	RX6733	B-2	C
IC4408	E-7	F	CKA65	D-2	F	CKC129	D-1	F	CKJ48	E-3	C	CL6738	B-2	C	FL3404	E-5	C	C3406	F-6	C	R3436	E-2	F	R6001	B-1	F	R50011	C-3	F	RX3527	C-7	F	RX6734	C-3	C
IC4409	E-7	F	CKA66	D-2	F	CKC131	D-1	F	CKJ50	E-3	C	CL6744	B-2	C	FL3406	E-6	C	C3407	E-2	F	R3440	D-4	C	R6002	C-3	F	R50012	B-3	F	RX3528	C-7	F	RX6735	C-3	C
IC6001	C-3	F	CKA67	D-2	F	CKC132	E-1	F	CKJ52	E-3	C	CL6745	B-2	C	FL3407	E-6	C	C3408	E-2	F	R3442	D-4	C	R6003	C-4	F	R50013	D-2	F	RX3529	E-7	F	RX6736	B-2	C
IC6002	C-3	F	CKA68	D-2	F	CKC133	E-1	F	CKJ58	E-2	C	CL6746	B-2	C	FL3409	E-7	C	C3410	F-6	C	R3443	D-4	C	R6004	E-4	C	R50015	C-5	C	RX3530	D-7	F	RX6737	B-2	C
IC6003	C-6	C	CKA69	D-2	F	CKC134	E-1	F	CKJ62	E-2	C	CL6747	B-2	C	FL3410	D-7	C	C3411	E-6	C	R3444	D-4	C	R6005	D-4	C	R50016	C-5	C	RX3531	D-7	F	RX6738	C-4	C
IC6004	B-3	F	CKA70	B-1	F	CKC135	E-1	F	CKJ65	D-2	C	CL6748	A-3	C	FL3411	C-6	C	C3417	F-5	C	R3445	D-2	F	R6006	D-4	C	R50017	C-5	C	RX3532	D-7	F	RX50001	E-4	F
IC6005	C-6	C	CKC19	B-3	F	CKC136	E-1	F	CKJ66	E-2	C	CL6749	A-3	C	FL3412	E-2	F	C3418	F-5	C	R3447	E-2	F	R6007	D-4	C	R50018	F-4	C	RX3538	C-5	F	RX50002	E-4	F
IC6006	C-5	C	CKC20	C-3	F	CKC137	E-1	F	CKJ68	E-2	C	CL9006	A-3	C	FL3414	D-5	C	C3419	E-5	C	R3448	E-2	F	R6008	C-6	C	R50019	F-4	C	RX3539	C-6	F	RX50003	D-4	F
IC6701	B-3	C	CKC22	A-2	F	CKC138	E-1	F	CKJ69	D-2	C	CL9019	A-3	C	FL3415	D-5	C	C3420	E-5	C	R3449	E-2	F	R6009	C-4	F	R50020	F-4	C	RX3540	C-6	F	RX50004	D-4	F
IC6703	C-1	C	CKC24	B-3	F	CKC139	E-1	F	CKJ70	F-2	C	CL9022	A-3	C	FL3416	D-5	C	C3421	E-5	C	R3450	E-2	F	R6010	C-4	F	R50021	F-4	C	RX6001	B-4	F	RX50005	D-3	F
IC50001	E-4	F	CKC25	C-3	F	CKF1	C-6	F	CKJ72	F-2	C	CL9023	A-3	C	FL3417	C-5	C	C3422	E-5	C	R3451	E-2	F	R6011	C-4	C	R50022	F-4	C	RX6002	B-4	C	RX50006	D-3	F
IC50002	E-3	F	CKC27	A-2	F	CKF3	C-7	F	CKJ74	E-2	C	CL9024	A-3	C	FL3418	D-4	C	C3423	E-5	C	R3452	D-2	F	R6013	B-4	F	R50023	F-4	C	RX6003	C-4	C	RX50007	E-2	F
Transistor			CKC29	C-4	F	CKF4	C-7	F	CKJ75	F-5	C	CL9025	A-3	C	FL3419	C-5	C	C3424	E-5	C	R3453	D-2	F	R6014	A-5	F	R50024	F-4	C	RX6004	B-5	C	RX50008	E-2	F
Q6001	D-4	C	CKC30	B-3	F	CKF5	C-7	F	CKJ78	E-2	C	CL9028	A-3	C	FL3420	D-4	C	C3425	E-5	C	R3454	E-2	F	R6015	A-5	F	R50025	F-4	C	RX6005	B-3	F	RX50009	D-4	F
Q6002	D-4	C	CKC32	C-2	F	CKF6	C-7	F	CKJ79	E-3	C	CL9029	A-4	C	FL3421	D-6	C	C3426	E-5	C	R3455	D-2	F	R6016	A-5	F	R50026	F-3	C	RX6006	A-3	F	RX50010	D-4	F
Q6701	C-2	C	CKC33	D-4	F	CKF8	C-7	F	CKJ81	E-3	C	CL37001	C-6	F	FL3422	E-5	C	C3427	E-5	C	R3456	D-2	F	R6017	B-4	F	R50027	F-4	C	RX6007	C-5	C	RX50011	D-4	F
Q6702	C-2	C	CKC35	A-2	F	CKF10	C-7	F	CKJ82	E-3	C	CL37002	C-6	F	FL3423	E-5	C	C3428	E-5	C	R3457	E-2	F	R6018	B-3	F	R50028	F-4	C	RX6009	D-4	F	RX50012	D-4	F
Q6703	C-2	C	CKC36	B-4	F	CKF12	C-7	F	CKJ83	E-7	C	CL37003	C-6	F	FL3424	D-4	C	C3429	E-7	C	R3458	D-2	F	R6019	B-3	F	R50029	F-4	C	RX6010	D-5	F	RX50013	D-4	F
Q6704	C-2	C	CKC37	A-2	F	CKF14	D-6	F	CKJ94	E-3	C	CL37004	C-6	F	FL3425	D-4	C	C3430	E-6	C	R3460</														

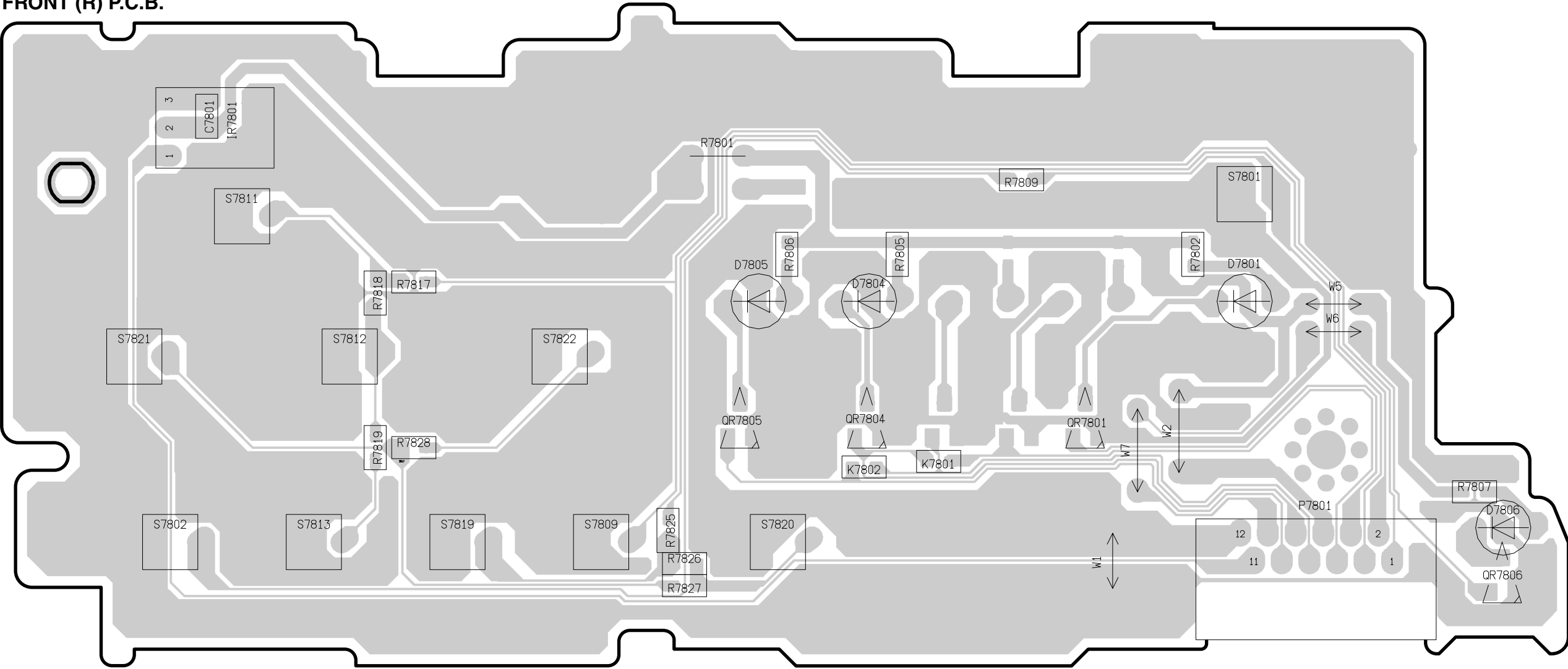


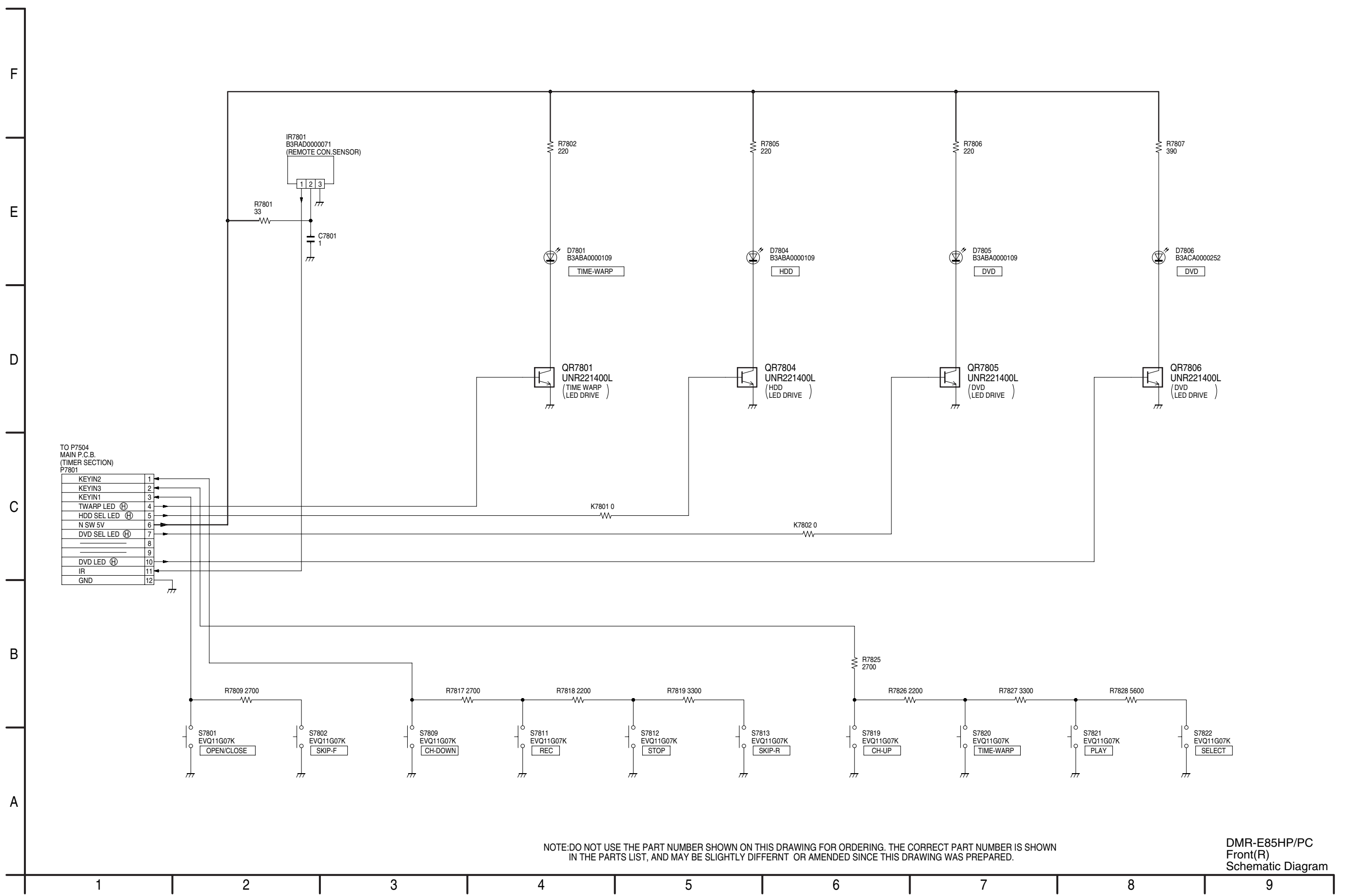






FRONT (R) P.C.B.

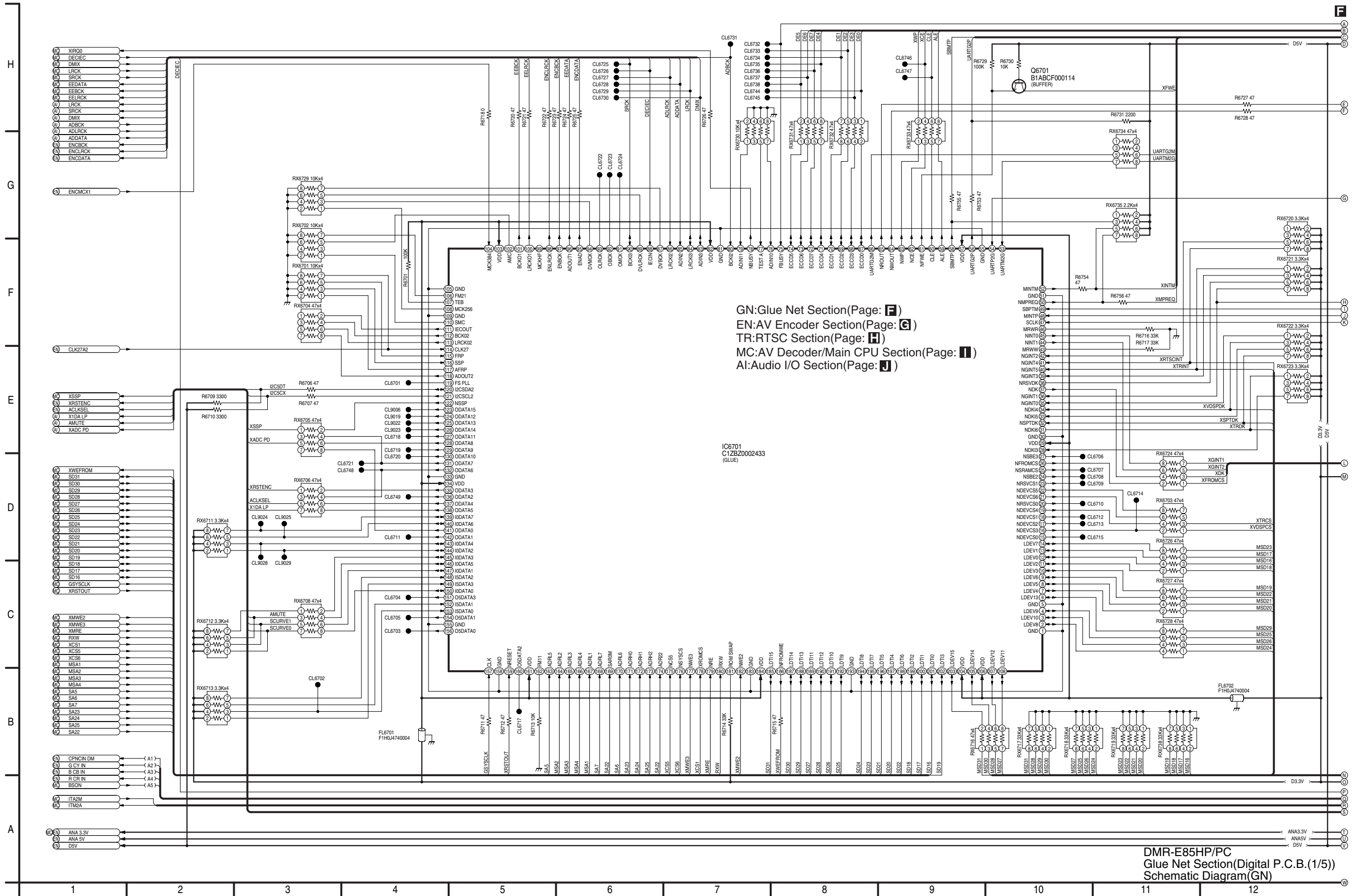


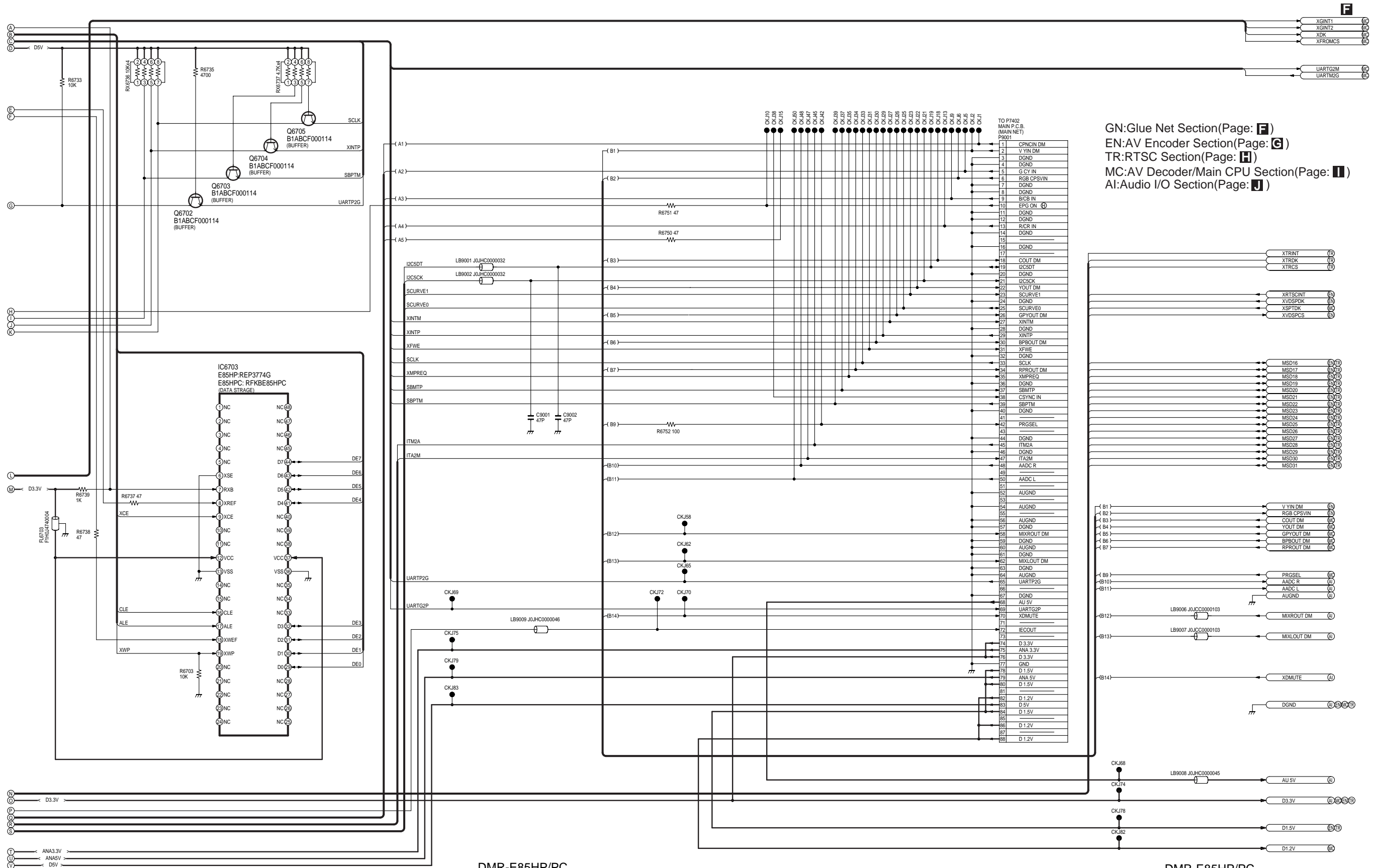


DMR-E85HP/PC  
Front(R)  
Schematic Diagram



Ref No.	QR7801			QR7804			QR7805			QR7806		
MODE	E	C	B	E	C	B	E	C	B	E	C	B
REC	0	3.5	0	0	3.5	0	0	0.1	4.9	0	0	4.9
PLAY	0	3.5	0	0	3.5	0	0	0.1	4.9	0	0	4.9
STOP	0	3.5	0	0	3.5	0	0	0.1	4.9	0	0	4.9



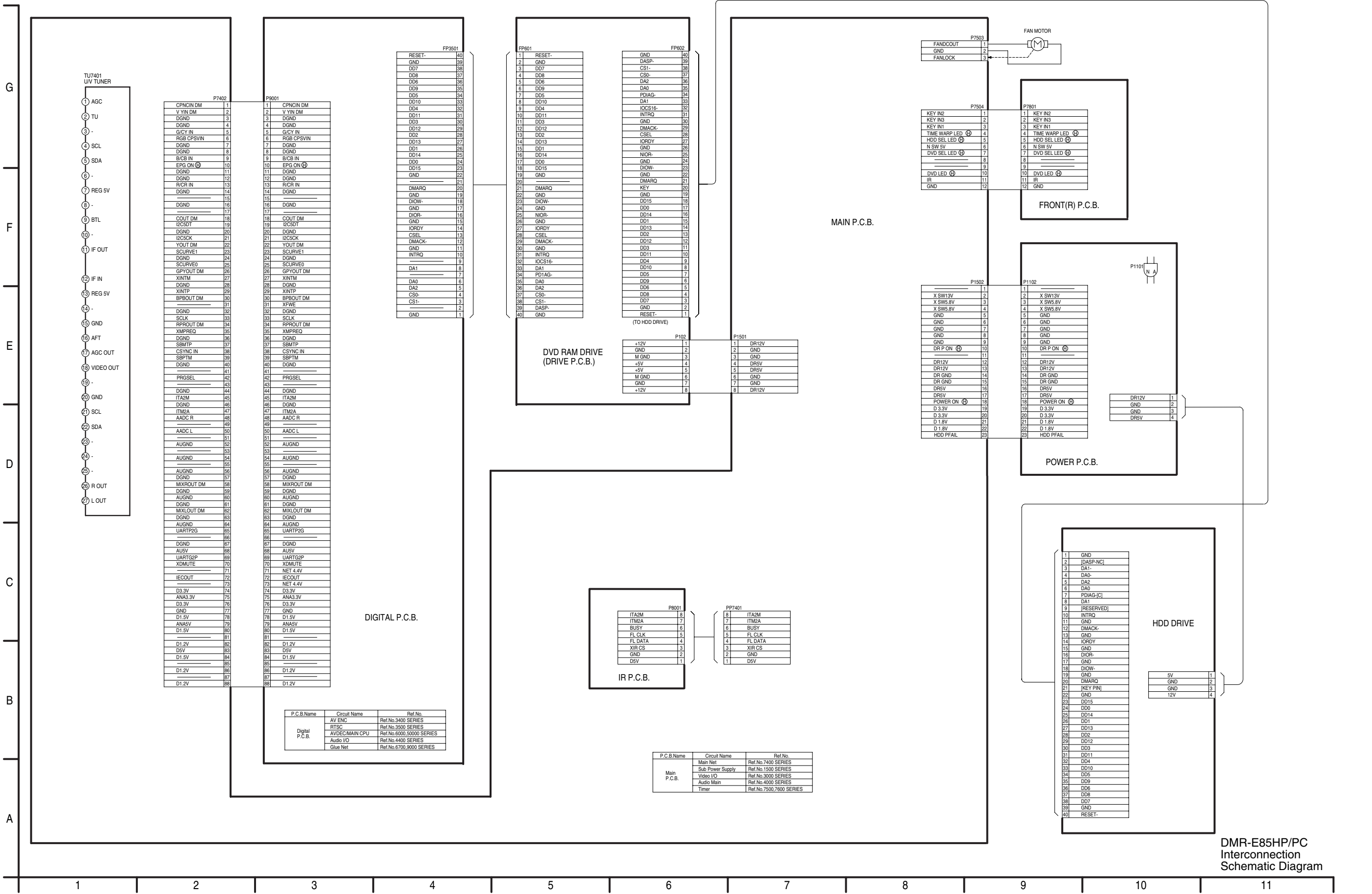


DMR-E85HP/PC  
Glue Net Section(Digital P.C.B.(1/5))  
Schematic Diagram(GN)

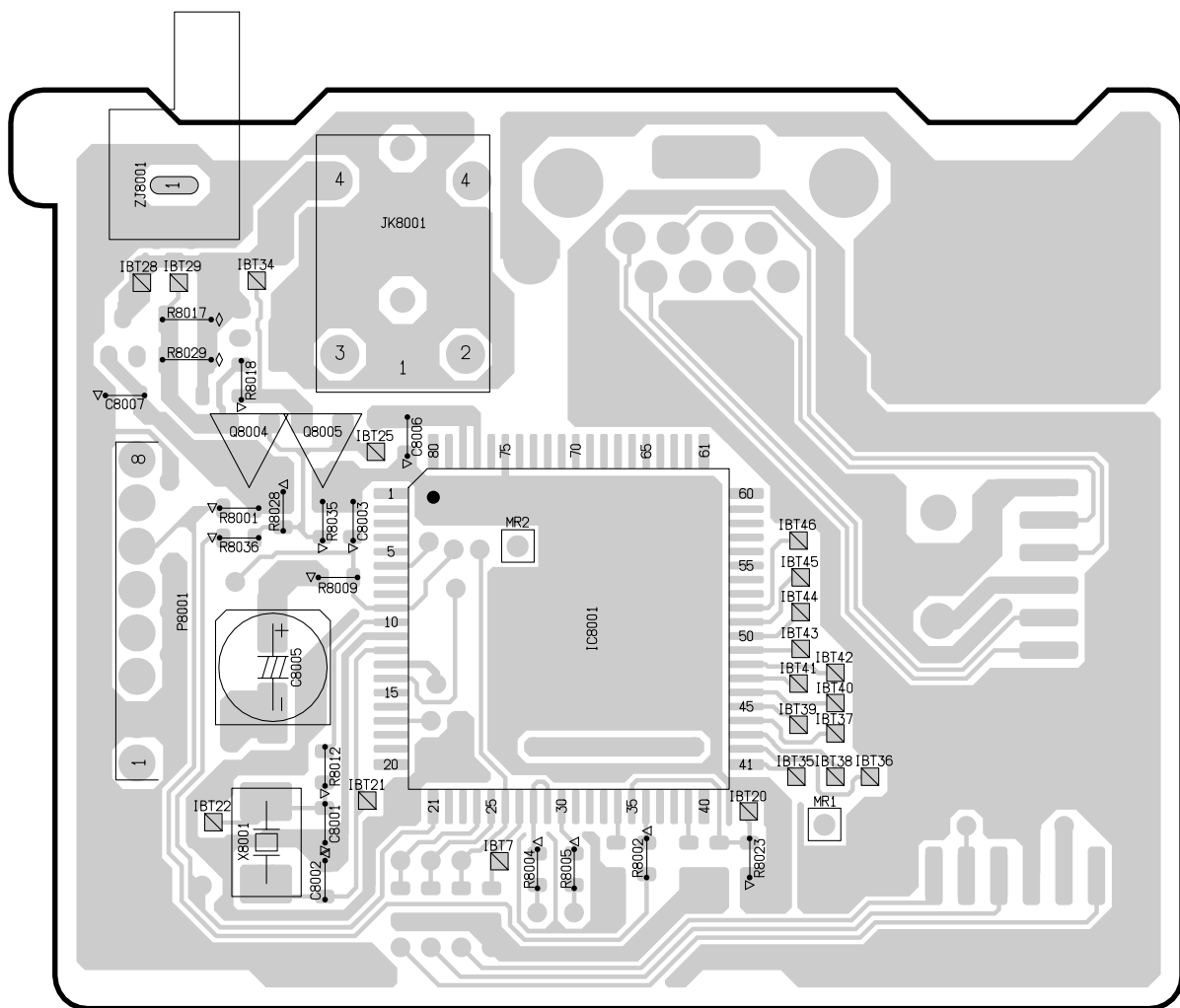
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HP/PC  
Glue Net Section(Digital P.C.B.(1/5))  
Schematic Diagram(GN)

GN:Glue Net Section(Page: **F**)  
EN:AV Encoder Section(Page: **G**)  
TR:RTSC Section(Page: **H**)  
MC:AV Decoder/Main CPU Section(Page: **I**)  
AI:Audio I/O Section(Page: **J**)



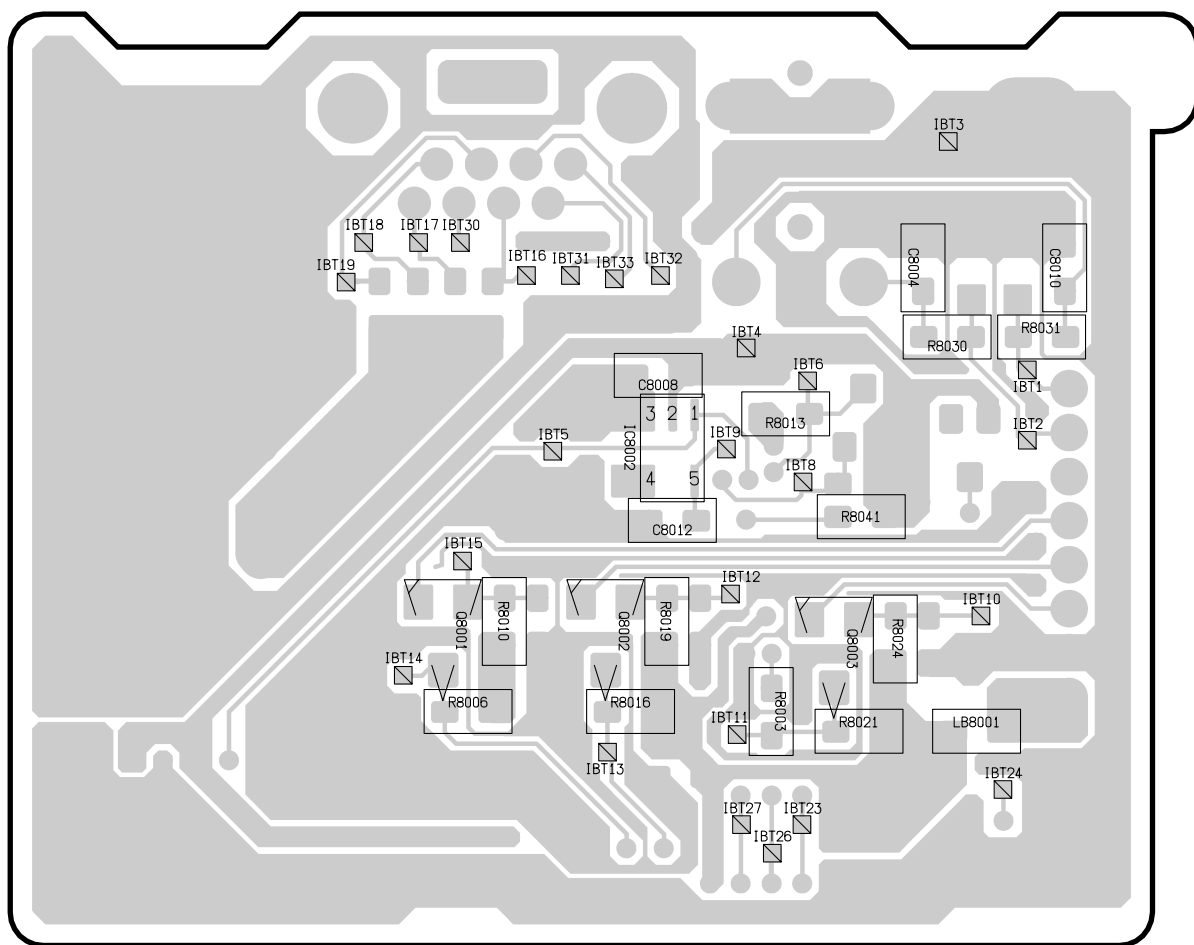
# IR P.C.B.



(COMPONENT SIDE)

DMR-E85HP/PC  
IR P.C.B. (Component Side)  
(REP3763A)

# IR P.C.B.



(FOIL SIDE)

DMR-E85HP/PC  
IR P.C.B. (Foil Side)  
(REP3763A)

F

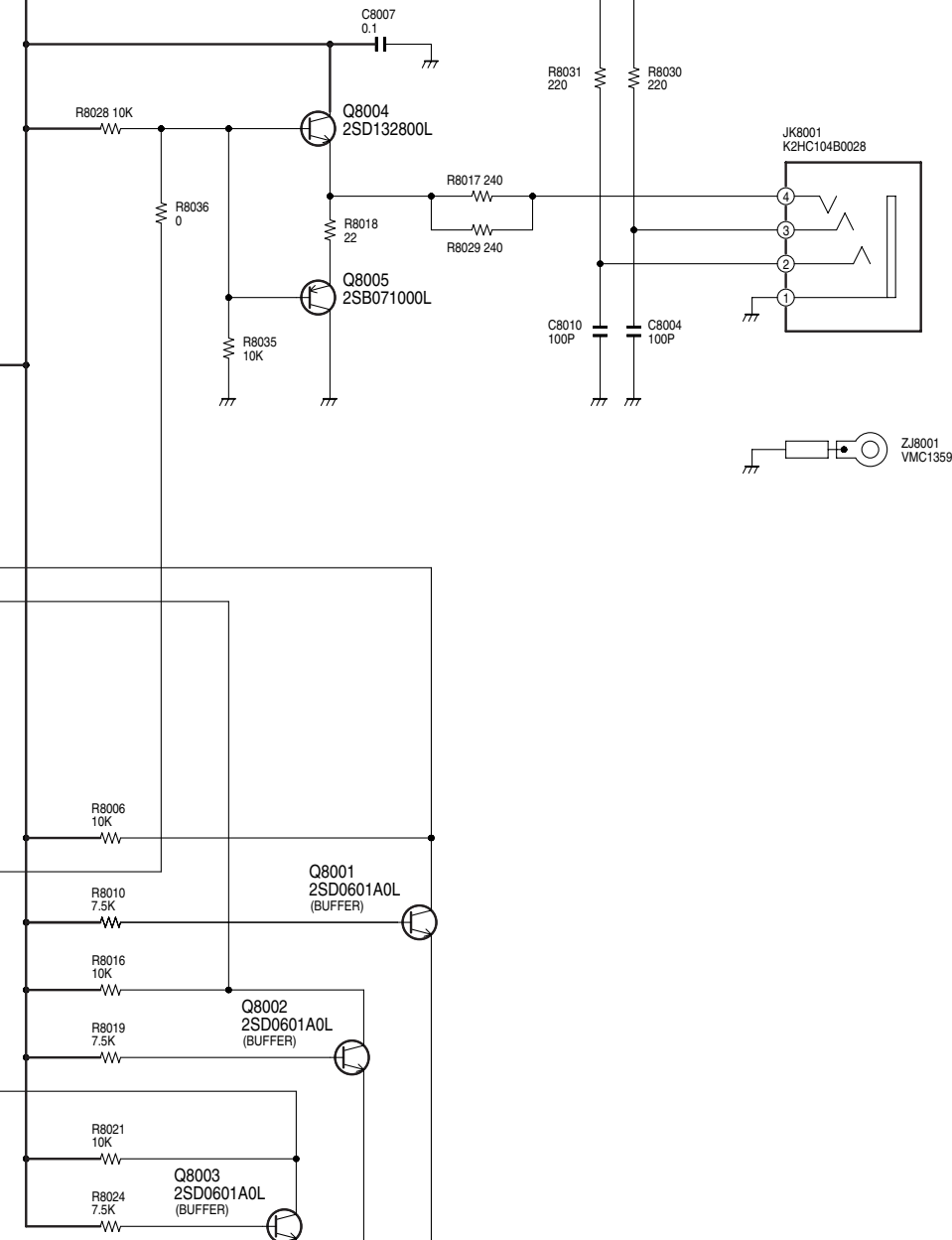
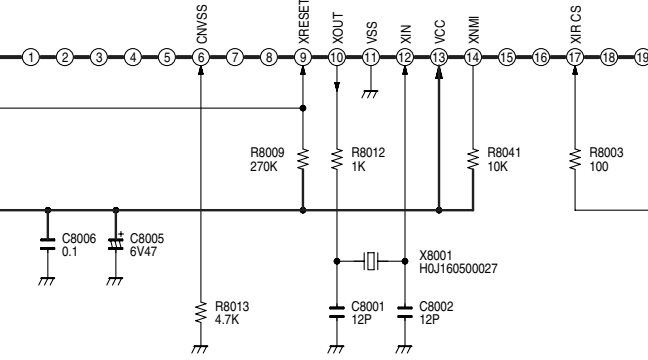
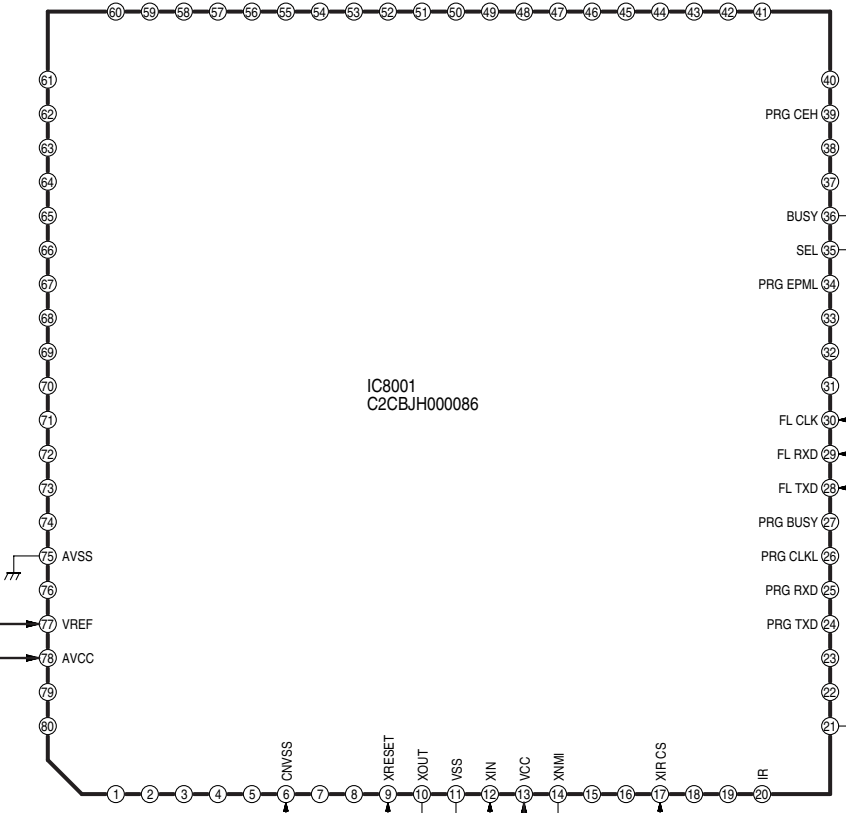
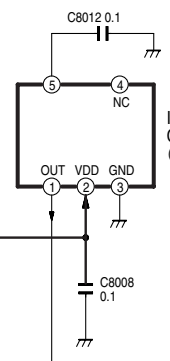
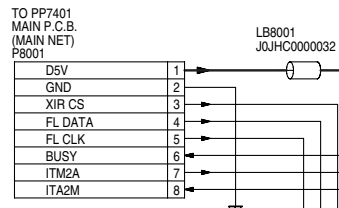
E

D

C

B

A



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.